

1-1-2014

Parental and Offspring Psychopathology: Can Parents with Problems be Effective?

Courtney P. Sparks

Follow this and additional works at: <https://scholarsjunction.msstate.edu/td>

Recommended Citation

Sparks, Courtney P., "Parental and Offspring Psychopathology: Can Parents with Problems be Effective?" (2014). *Theses and Dissertations*. 3444.

<https://scholarsjunction.msstate.edu/td/3444>

This Graduate Thesis - Open Access is brought to you for free and open access by the Theses and Dissertations at Scholars Junction. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholars Junction. For more information, please contact scholcomm@msstate.libanswers.com.

Parental and offspring psychopathology: Can parents with problems be effective?

By

Courtney P. Sparks

A Thesis
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Master of Science
in Psychology
in the Department of Psychology

Mississippi State, Mississippi

August 2014

Copyright by
Courtney P. Sparks
2014

Parental and offspring psychopathology: Can parents with problems be effective?

By

Courtney P. Sparks

Approved:

Cliff McKinney
(Major Professor)

Eric Samuel Winer
(Committee Member)

Jared W. Keeley
(Committee Member)

Deborah K. Eakin
(Graduate Coordinator)

R. Gregory Dunaway
Professor and Dean
College of Arts & Sciences

Name: Courtney P. Sparks

Date of Degree: August 15, 2014

Institution: Mississippi State University

Major Field: Psychology

Major Professor: Cliff McKinney

Title of Study: Parental and offspring psychopathology: Can parents with problems be effective?

Pages in Study: 65

Candidate for Degree of Master of Science

Research has established a link between parental psychopathology, perceptions of parents, and child outcomes. Separately, negative perceptions of a parent and parental psychopathology are associated with negative outcomes. However, a stronger relationship may exist when these factors are combined. Current research indicates that children tend to view a parent with psychopathology more negatively and consequently are at a greater risk for psychopathology. Less research examines the outcomes of children who hold positive perceptions of a parent with psychopathology, as well as the effects of perceptions of parents on emerging adults. The current study tested a model where perceptions of parents moderated the relationship between parental psychopathology and emerging adult psychopathology. Results indicated that holding positive perceptions of a parent with internalizing problems puts an emerging adult at a greater risk for internalizing problems, whereas the effect of parental psychopathology and perceptions of parents on emerging adult externalizing problems was unclear.

ACKNOWLEDGEMENTS

I would first like to express my gratitude to my advisor, Dr. Cliff McKinney. His guidance and expertise have greatly assisted in the successful completion of this project and my degree. My committee members, Dr. Samuel Winer and Dr. Jared Keeley, have also offered recommendations and insights which have greatly assisted me in my research and coursework.

I am also grateful for my colleagues and friends: Mary Ward Pollard, Kimberly Brown, Destiny Peterson, Brittany Kinman, and Taban Salem. Without them, the completion of this project and my degree would not have been possible. I am beyond grateful for their unending support and words of encouragement, as well as the hours of challenging, intellectual discussions we have all shared. Lastly, I also wish to thank my partner, Benjamin Walker, for his unending support, love, and encouragement.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	v
LIST OF FIGURES	vi
CHAPTER	
I. INTRODUCTION	1
Parental Psychopathology and Child Outcomes	2
Parenting Practices and Child Outcomes	5
Parental Psychopathology Effects on Parenting Practices	6
Perceived Parenting	8
Emerging Adulthood	10
Interaction between Perceptions of Parents and Parental Psychopathology	10
Current Study	11
II. METHOD	13
Participants	13
Materials	14
Perceptions of Parents	14
Adult Self Report and Adult Behavior Checklist	14
Procedure	15
III. RESULTS	16
Correlation Analyses	16
Regression Analyses	19
Emerging Adult Depression	20
Emerging Adult Anxiety	22
Emerging Adult Antisocial Problems	24
IV. DISCUSSION	29
Research and Policy Implications	34
Limitations	36

Summary	37
REFERENCES	39
APPENDIX	
A. ADULT SELF REPORT/ADULT BEHAVIOR CHECKLIST	48
B. PERCEPTIONS OF PARENTS	59
C. IRB APPROVAL LETTER	64

LIST OF TABLES

1	Correlations of parental psychopathology with emerging adult psychopathology and perceptions of parents.....	18
2	Correlations of parental psychopathology with emerging adult psychopathology and perceptions of parents.....	19
3	Summary of hierarchical regression analysis for variables predicting emerging adult depression.....	21
4	Summary of hierarchical regression analysis for variables predicting emerging adult anxiety.....	23
5	Summary of hierarchical regression analysis for variables predicting emerging adult antisocial problems.....	26

LIST OF FIGURES

1	Interaction plot of maternal depression and negative perceptions on emerging adult depression.....	22
2	Interaction plot of paternal anxiety and positive perceptions on emerging adult anxiety	24
3	Interaction plot of maternal depression and positive perceptions on emerging adult antisocial problems.....	27
4	Interaction plot of maternal depression and negative perceptions on emerging adult antisocial problems.....	27
5	Interaction plot of maternal antisocial problems and positive perceptions on emerging adult antisocial problems.....	28
6	Interaction plot of maternal antisocial problems and negative perceptions on emerging adult antisocial problems	28

CHAPTER I

INTRODUCTION

Multiple studies have established a strong link among parental psychopathology, parenting behaviors, and various child outcomes. As a result, research now has approached the question as to how these factors play a role in the development of child psychopathology. Existing research has suggested that separately, parental psychopathology and parenting behaviors may be associated with negative effects on children; yet, a stronger relationship may be found when these factors are combined. Specifically, research has shown that parents who have psychopathology may be more likely to engage in negative parenting behaviors, which in turn may be associated with negative child outcomes (Laskey & Cartwright-Hatton, 2009). These findings suggest that parents who have psychopathology may engage in more negative parenting behavior than parents without psychopathology. At the same time, negative parenting practices may impact how children perceive their parents, thus resulting in negative outcomes (Yahav, 2006). Given that research has distinguished what types of parenting are the most and least effective, it is sometimes assumed that all parents fall easily into these categories. Yet, things are not always “black and white.” Specifically, it is not known what types of outcomes may be expected for children whose parents have psychopathology and are able to engage in effective parenting behaviors, thus resulting in

children viewing parents positively. Similarly, it is not known if perceptions of parents and parental psychopathology are additive or interactive effects.

Current research typically has focused on how parental psychopathology is associated with ineffective parenting behavior and subsequent negative child outcomes. The purpose of the current study was to test a model where perceptions of parents moderate the relationship between parental psychopathology and child psychopathology. Past research has examined these characteristics in earlier developmental time periods but less research has examined these characteristics in emerging adults. Thus, this study aimed to determine these effects on emerging adults.

Parental Psychopathology and Child Outcomes

Multiple studies have shown that parental psychopathology is a factor in the development of child psychopathology. Youth who had a parent with an internalizing disorder, such as anxiety or depression, were at a greater risk of developing an internalizing disorder than youth whose parents did not (Papp, Cummings, & Goeke-Mory, 2005). In addition, negative outcomes were predicted for youth whose parents had an externalizing disorder, such as antisocial tendencies (Marmorstein & Iacono, 2004). Numerous explanations exist for this effect, including heredity and the environment; however, research has indicated that for children, environmental effects (e.g., parent-child interaction, marital conflict) may be a stronger factor than hereditary effects in the development of a mental disorder (Goodman & Gotlib, 1999).

Often when discussing the role parental psychopathology has on child outcomes, the phrase “a chip off the old block” is relevant. Research has shown that depressed individuals were more likely to bring out the same feelings of depression, anxiety, and

hostility in those around them (Goodman & Gotlib, 1999). The connection between maternal depression and youth outcome has been well defined, as children with depressed mothers are more likely to suffer from internalizing and externalizing problems (Goodman & Gotlib, 1999; Cummings & Davies, 1999; Kim-Cohen et al., 2005). In addition, it has been shown that children with depressed mothers “mirror” the same cognitions, functioning, and behaviors as their mother, which in turn put the child at a greater risk for developing psychopathology (Goodman & Gotlib, 1999). Moreover, depressed parents may be more likely to be unresponsive to their children, thus resulting in a sense of rejection and low self-esteem in the child (Cummings & Davies, 1999). This cycle of psychopathology is not exclusive to parent-child dyads and has been demonstrated across generations. Warner and colleagues (1995) found that children who had a grandparent with a depressive disorder also were at a greater risk for developing psychological problems.

Likewise, parental anxiety disorders have a negative impact on child development. Some research even has suggested that parental anxiety disorders were a better indicator of both child anxiety and depressive symptoms than parental depressive disorders (Burstein, Ginsburg, & Tein, 2010). Multiple studies have indicated a relationship between parental anxiety and negative youth outcomes, such as feelings of worry, difficulties at school, and social isolation (Mufson, Weissman, & Warner, 1992; Merikangas, Dierker, & Szamari, 1998). In addition, parental anxiety disorders may negatively affect children’s coping skills. Parents with anxiety disorders may view new or challenging situations as dangerous to their child, and as a result, attempt to protect their child from harm by utilizing heightened levels of parental control. This parental

control could lead to the child avoiding new situations and the development of inadequate coping skills (van der Bruggen, Stams, & Bogels, 2008).

It is important to note that much of the research surrounding the development of child psychopathology focuses on the mother's psychopathology. Many explanations exist for the focus on maternal problems; for example, women are more likely than men to suffer from a psychological disorder (Connell & Goodman, 2002). In addition, it is often assumed that the mother is the primary caregiver and spends more time with the children, thus expanding the risk for transmission of psychopathology. However, recent research has suggested that paternal depression also plays a significant role in a child's internalizing and externalizing problems, even after controlling for maternal depression (Kane & Garber, 2009). Thus, the effects of paternal psychopathology should not be ignored.

In particular, paternal antisocial behavior may be a better indicator of negative outcomes in youth, such as depression and conduct disorder, than paternal depression. In addition, mothers with depression were more likely to partner with fathers with antisocial behavior problems (Marmorstein & Iacono, 2004). Research has indicated that parental antisocial behavior was related to an array of negative outcomes for youth, such as negative emotionality, poor inhibitory control, and externalizing problems (Capaldi, Pears, Kerr, & Owen, 2008; Feinberg Button, Neiderhiser, Reiss & Hetherington, 2007; Harold, Elam, Lewis, Rice, & Thapar, 2012; Jaffee, Belsky, Harrington, Caspi, & Moffitt, 2006).

Parenting Practices and Child Outcomes

Perhaps one of the most influential factors on child outcome is how a parent raises their child. As mentioned earlier, research suggests that environmental factors may be more influential than hereditary factors when it comes to the development of psychopathology in children (Goodman & Gotlib, 1999). More simply stated, although a child may inherit a genetic predisposition for developing characteristics of a disorder (i.e., neuroticism, sociability, shyness, etc.), environmental factors (e.g., parenting practices) may ultimately determine the development of psychopathology.

Parenting behaviors such as psychological control, parental warmth, and behavioral control are important when discussing children's psychological development. However, it has been suggested that the combination of different parenting factors be examined to obtain a complete picture of what factors are affecting child outcome (Baumrind, 1991; Darling & Steinberg, 1993; Steinberg, 2001). Although, research has attempted to explain different parenting behaviors, parenting may generally be conceptualized into four styles: authoritarian, authoritative, permissive, and neglecting (Baumrind, 1991).

Research has shown that authoritative parenting (i.e., high responsiveness and high demandingness) generally is related to more positive outcomes compared to authoritarian (i.e., low responsiveness and demandingness), permissive (i.e., high responsiveness and low demandingness), and neglecting (i.e., low responsiveness and low demandingness) parenting which are associated with less positive outcomes (McKinney & Renk, 2008; Paulussen-Hoogeboom, Stams, Hermanns, Peetsma, & Wittenboer, 2008; Yahav, 2006). Children who receive authoritative parenting may be

more self-reliant, self-controlled, and explorative, whereas children who receive authoritarian parenting may be discontent, withdrawn, and distrustful. In addition, permissive parenting may result in the child possessing low levels of self-reliance and self-control. Children who receive neglectful parenting may be socially passive and have poor self-regulation (Baumrind, 1971; Baumrind, 1991).

In addition to parenting styles, discipline strategies have been linked to internalizing problems (Blackson, Tarter, & Mezzich, 1996) and externalizing problems (Parke & Deur, 1972). Positive outcomes have been observed for children who receive consistent, non-violent types of discipline (e.g., time out), whereas negative outcomes are observed for children who receive assault-types of discipline (e.g., corporal punishment and psychological aggression). A meta-analysis concluded that the use of corporal punishment was linked to increased aggression and antisocial behavior both in childhood and adulthood, increased risk of adult criminal behavior and mental health problems (Gershoff, 2002). In addition, the use of psychological aggression has been linked to high levels of anxiety and low levels of self-esteem in youth (Renk, McKinney, Klein, & Oliveros, 2006).

Parental Psychopathology Effects on Parenting Practices

Overall, parental psychopathology has been found to have a significant impact on parenting practices. However, much of the research regarding parenting practices has taken a “bottom up” approach in which it examines parenting behaviors of parents with children with psychopathology instead of parenting behaviors of parents with psychopathology (Drake & Ginsburg, 2011). It seems that parents with psychopathology engage in different parenting styles than parents without psychopathology. For example,

Lindhout and colleagues (2006) found that when compared to non-disordered parents, parents with an anxiety disorder reported a more controlling and less warm parenting style. In addition, parents with anxiety disorders were more likely to engage in ineffective disciplinary tactics (e.g., corporal punishment), which in turn can impact a child's sense of security and elicit internalizing behavior (Laskey & Cartwright-Hatton, 2009). Moreover, anxious parents may hold unhelpful beliefs about parenting, including negative perceptions of their child and themselves as a parent. Parents with anxiety may have difficulty in controlling their emotions, in addition to controlling their child's negative behaviors, and use harsher techniques to try to control their child, such as yelling or using physical punishment (Laskey & Cartwright-Hatton, 2009).

In regards to depression, depressed parents may engage in ineffective parenting strategies that require little energy, such as low levels of warmth, disengagement, and rejection (Downey & Coyne, 1990). Some of the ineffective parenting behaviors may be a result of the negative affect the parent experiences, and results in negative responses to their child's behavior, such as physical or psychological punishment (Rueger, Katz, Risser, & Lovejoy, 2011). In addition, ineffective parenting behaviors brought on by depression have been shown to mediate the relationship between parental depression and child behavior problems (Elgar et al., 2007).

Parents with antisocial behavior tendencies also may have difficulty in engaging in effective parenting practices. For instance, parents with antisocial tendencies may put their family through various transitions (e.g., frequent divorce, job loss, frequent shifts in home environment) that can result in negative child outcomes and low parental involvement. The antisocial behaviors exhibited by the parent, as well as the

consequences of the behavior (e.g., incarceration), may prevent them from engaging in effective parenting practices, such as monitoring and consistent discipline (Capaldi & Patterson, 1991). In addition, parents with antisocial tendencies may be more likely to engage in explosive aggressive behaviors with their youth, such as corporal punishment and psychological aggression, than parents without antisocial tendencies (Bank, Forgatch, Patterson, & Fetrow, 1993).

One limitation of current research is that it does not thoroughly address modeling of symptomatic behaviors. Parents with psychopathology, such as an anxiety disorder, may model anxious symptoms (e.g., avoidance, lack of control/ability) that their child can adopt (Wood, McLeod, Sigman, Hwang, & Chu, 2003). Kane and Garber (2009) found that parents with psychological disorders might reflect their symptoms onto their youth and, in turn, influence youth to model the same behaviors associated with the disorder (e.g., self-absorption, over control, irritability). Some researchers have drawn upon Bandura's (1977) social learning theory to help explain this modeling of behavior. Social learning theory states that children observe and model the behaviors, attitudes, and emotions of others. Burstein and Ginsburg's (2010) study attempted to experimentally test the effects of parental anxious modeling on child anxiety level. Results from the study concluded that when parents were instructed to model anxious behaviors and cognitions, their child experienced greater levels of anxiety, anxious cognitions, and avoidance than children of parents in the non-anxious condition.

Perceived Parenting

Another factor of youth outcome that is often overlooked is the child's perception of his/her parent's parenting. Youth's perceptions of their parents' communication skills,

emotional availability, and support have been linked to substance abuse, delinquency, and other negative adjustment outcomes (McKinney, Donnelly, & Renk, 2008). Furthermore, research also has shown that if youth perceived their parents as authoritative, they were more likely to have positive outcomes as well as an easier transition into adulthood (McKinney, Donnelly, & Renk, 2008).

In addition, it appears that children's perceptions of their parents have a significant impact on psychological outcomes. Bosco and colleagues (2003) found that children's perceptions of their parents could lead to the development of internalizing and externalizing problems. Specifically, sons who reported having negative perceptions of their mother had more externalizing problems than those who had positive perceptions of their mother. Adding to this research, Yahav (2006) found that children's negative perceptions of parenting practices led to internalizing problems, whereas very negative perceptions of parenting practices led to externalizing problems. Although limitations of self-report are evident, it remains a valid method of obtaining pertinent information from emerging adults to gain a better understanding of their outcomes. In fact, it would appear that a youth's perception of ineffective parenting practices (e.g., parental neglect) and psychopathology, whether accurate or not, puts them at a greater risk for developing psychopathology (Young, Lennie, and Minnis, 2011). Moreover, emerging adults' perceptions of their fathers' and mothers' parenting style offers a more inclusive, mature, and perhaps more accurate perspective, as emerging adults are no longer constrained by their parents or by legal entities (Finley, Mira, & Schwartz, 2008; Finley & Schwartz, 2007). That is, emerging adults' perceptions may be free of influences that would encourage concealment and/or exaggeration of characteristics of their parents' behavior.

Emerging Adulthood

One aspect that existing research of child development disregards is the fact that children eventually grow up. Little attention has been given to the implications these factors have on emerging adults. Individuals 18 to 25 years of age often experience a developmental time period coined “emerging adulthood” (Arnett, 2000). During this period, many individuals are transitioning from their adolescent lifestyle to an increasingly independent adult lifestyle (e.g., college). At the same time, these individuals are experiencing a shift in the dynamics of their relationship with their parents, and parenting may play a crucial role in the successful transition into adulthood (Hardie, 1999). In fact, research illustrates that emerging adults who are in college away from home continuously rely on their parents and are still influenced by their parental relationships (McKinney, Milone, Renk, 2011; McKinney & Renk, 2008; McKinney, Donnelly, & Renk, 2008). Further, the perceptions that emerging adults have of their parents also may influence their transition into adulthood.

Interaction between Perceptions of Parents and Parental Psychopathology

In general, research has demonstrated that children of parents who engage in effective parenting behaviors (e.g., authoritative, non-violent discipline) can be expected to have positive outcomes. However, these findings raise the question as to what outcomes can be expected for children whose parents engage in a combination of parental behaviors. For example, a mother may be warm and affectionate but engage in controlling behavior. Aunola and Nurmi (2005) found that maternal psychological control combined with high levels of affection predicted high levels of both externalizing and internalizing behaviors in children. An explanation for this finding could be that

even though the mother is supportive, her psychological control communicates guilt-inducing attitudes and increases the child's dependence towards his or her mother (Aunola & Nurmi, 2005).

On the other hand, it may be that high levels of affection and psychological control present an inconsistent message of approval and love, thus provoking anxiety and impacting the child's sense of control (Aunola & Nurmi, 2005; Chorpita & Barlow, 1998). In addition, it may be more detrimental to children's outcomes if they perceive their parent as being a "good" parent and, as a result, are more likely to model the parent's behavior (Bandura, 1977). Lindhout et al. (2006) found that although parents with psychopathology rated themselves as having less warmth than parents without psychopathology, their child's perception of parental warmth was no different than the perceptions of children whose parents had no psychopathology. It may be that parents engage in ineffective parenting behaviors as a result of their psychopathology but are still able to engage in some effective parenting behaviors. This could lead to the child developing a positive perception of the parent and possibly a mirroring of symptom related behavior (e.g., over-control) and other negative outcomes.

Current Study

The primary focus of this study was to add to the literature by examining how parent perceptions may serve as a moderator between parental psychopathology and emerging adult psychopathology. Hypothesis 1 stated that emerging adult perception of parental psychopathology will be correlated positively with emerging adult psychopathology. Hypothesis 2 stated that perceived parental psychopathology will be correlated negatively with positive perceptions of parents. Hypothesis 3 stated that

positive perceptions of parents will be correlated negatively with emerging adult psychopathology. Hypothesis 4 stated that the effect of perceived parental psychopathology on emerging adult psychopathology will be moderated by emerging adults' perceptions of their parents. Specifically, it was expected that high perceived parental psychopathology (depression, anxiety, antisocial problems) combined with positive perceptions will be associated with particularly high emerging adult psychopathology. That is, an emerging adult may identify more strongly with a parent who they perceive positively and become more susceptible to the transmission of parental psychopathology.

CHAPTER II

METHOD

Participants

The sample consisted of participants from a large southern university who volunteered in exchange for course credit. Participants who did not fall in the emerging adult age range (i.e. 18 to 25 years) or did not take sufficient time to complete the survey (i.e., 2 *SD* below the average time to complete the survey) were excluded from data analysis. The final sample consisted of 175 males and 309 females who ranged in age from 18 to 24 years ($M = 18.60$, $SD = 1.00$). The majority of the sample consisted of Caucasian (69.4%) and African American (23.6%) participants, whereas Hispanic (2.7%), Asian (2.3%) and other race (2.1%) participants comprised the rest. A large percentage of participants reported that their household consisted of both a biological mother and father (66.5%), and others reported a biological parent and a step-parent (13.3%), a biological mother only (14.8%), a biological father only (2.5%), or other care givers (e.g., aunts, uncles, grandparents; 2.9%). Participants reported that 4.1% of fathers and 3.0% mothers did not complete high school; 32.6% of fathers and 24.2% of mothers had received a high school degree; 10.9% of fathers and 16.3% of mothers had a two-year degree; 29.6% of fathers and 35.8% of mothers had a four-year degree; and 22.8% of fathers and 20.7% of mothers had a graduate degree.

Materials

Perceptions of Parents

The Perceptions of Parents Measure (POP; Phares & Renk, 1998) is a 15-item scale designed to measure adolescents' affective schema about their mothers and fathers. Respondents answer questions measuring positive and negative affect towards a parent (e.g., "How much do you feel disappointed or let down by your mother?"). Responses are rated on a six-point scale with answers ranging from *not at all* to *extremely*. In previous studies, alphas for positive affect ranged from .93 to .98, and alphas for negative affect ranged from .73 to .84 (Phares & Renk, 1998). Validity also is established as positive affect toward parents is related to more positive outcomes for adolescents and negative affect is related to more negative outcomes (Phares & Renk, 1998).

Adult Self Report and Adult Behavior Checklist

The Adult Self-Report (ASR; Rescorla & Achenbach, 2004) and Adult Behavior Checklist (ABCL; Achenbach & Rescorla, 2003) are both 123-item self-administered instruments used to measure adaptive functioning, problem behavior, and externalizing and internalizing psychopathology. The ASR is used to obtain information about the reporter; whereas the ABCL is used to obtain information about another individual being assessed from the reporter's perspective (e.g., a spouse, family member, friend, etc.). On both measures, 123 items about problem behaviors are comprised of 8 empirically based syndromes derived by factor analysis. The scales loading onto the internalizing problems scale are withdrawn, somatic complaints, and anxious/depressed syndrome scales. The externalizing problems scale is comprised of the rule-breaking behavior, aggressive behavior, and intrusive syndrome scales. Thought problems and attention problems

scales are also present, but do not load onto a higher-order scale. A total problem score can be calculated by summing the individual item scores. Internal consistency alpha has ranged from .87 to .93 (Achenbach & Rescorla, 2003; Rescorla & Achenbach, 2004). In this study, participants completed the ABCL to assess their perceptions of psychopathology present in their mother and father and completed the ASR in regard to themselves. Respondents were instructed to answer the ASR and ABCL statements as being 0 (*not true*), 1 (*somewhat or sometimes true*), and 2 (*very true or often true*). These measures were used to indicate specific types of psychopathology in parents and participants (i.e., anxiety, depression, and antisocial tendencies).

Procedure

After IRB approval was obtained, the survey was conducted online and the completion and/or voluntary withdrawal of the study resulted in the award of one and a half credits for participation. The survey included scales described above. A consent form was provided electronically before the survey began and a printable debriefing sheet was provided once the survey ended. Participants completed the surveys in random order and were instructed to complete all measures based upon their current perceptions.

CHAPTER III

RESULTS

The current study aimed to examine how emerging adults' perceptions of their parents may moderate the relationship between parental psychopathology and emerging adult psychopathology. All statistical analyses were conducted using PASW 21.0. Please see Tables 1 and 2 for correlations and Tables 4 and 5 for regression analyses.

Correlation Analyses

Pearson correlations were conducted to test hypotheses 1 through 3. First, the relationship between perceived parental psychopathology and emerging adult psychopathology was examined. As shown in Table 1 and confirming hypothesis 1, perceived maternal and paternal depression, anxiety, and antisocial problems all were positively related with emerging adult depression, anxiety, and antisocial problems.

Second, the relationship between perceived parental psychopathology and parent perceptions was examined. As shown in Table 1, perceived maternal depression problems were negatively correlated with emerging adults' positive perceptions of mothers, whereas maternal depression problems were positively correlated with emerging adults' negative perceptions of mothers. This pattern of association also was demonstrated for maternal anxiety and antisocial problems, as well as paternal depression, anxiety, and antisocial problems. Overall, perceived parental

psychopathology was negatively correlated with emerging adults' positive perceptions and positively correlated with emerging adults' negative parent perceptions, thus supporting hypothesis 2.

Third, the relationship between emerging adults' perceptions of parents and emerging adult psychopathology was examined. As shown in Table 2, emerging adults' positive perceptions of their mothers and fathers were correlated negatively with emerging adult psychopathology. Conversely, emerging adult's negative perceptions of their mothers and fathers were correlated positively with emerging adult psychopathology. Thus, hypothesis 3 was supported as well.

Table 1

Correlations of parental psychopathology with emerging adult psychopathology and perceptions of parents

	DEPRESSION	ANXIETY	ANTISOCIAL	POSITIVE	NEGATIVE
1. Maternal Depression Problems	.62	.40	.65	-.62	.57
2. Paternal Depression Problems	.61	.34	.65	-.43	.41
3. Maternal Anxiety Problems	.43	.50	.36	-.30	.35
4. Paternal Anxiety Problems	.47	.46	.46	-.20	.22
5. Maternal Antisocial Problems	.58	.29	.67	-.61	.57
6. Paternal Antisocial Problems	.59	.40	.64	-.58	.52

Note. All correlations are significant at $p < .01$. Correlations between positive and negative perceptions of the same parent were also observed: Positive and Negative POP – Mother, $r^2 = .62$; Positive and Negative POP – Father, $r^2 = .69$.

Table 2

Correlations of parental psychopathology with emerging adult psychopathology and perceptions of parents

	DEPRESSION	ANXIETY	ANTISOCIAL
1. Positive POP - Mother	-.36	-.20	-.39
2. Positive POP - Father	-.40	-.27	-.40
3. Negative POP - Mother	.40	.32	.40
4. Negative POP - Father	.39	.29	.36

Note. All correlations are significant at $p < .01$

Regression Analyses

Hierarchical regression analyses were used to test hypothesis 4, that positive perceptions of parents would moderate the effects of parental psychopathology on emerging adult psychopathology. Separate analyses were completed for each dependent variable (i.e., emerging adult depression, anxiety, and antisocial problems) resulting in 3 models. All variables in the regressions were centered. In step 1 of each regression, perceptions of parents were entered, in step 2 perceived parental psychopathology variables (i.e., anxiety, depression, and antisocial personality problems) were entered, and in step 3, interaction terms created from the perceptions of parents and perceived parental psychopathology variables were entered (e.g., maternal anxiety x positive perceptions of mother). Figures depicting interaction effects use a 1 standard deviation spread to represent "high" (i.e., 1 standard deviation up) and "low" (i.e., 1 standard deviation down) groupings. Each predictor had both a maternal and paternal term.

Emerging Adult Depression

In step 1 when perceptions of parents was entered, the model provided a significant fit, adjusted $R^2 = .24$, $F(4, 432) = 35.03$, $p < .001$, with negative perceptions of mothers, positive perceptions of fathers, and negative perceptions of fathers being significant predictors of emerging adult depression problems. In step 2, the addition of perceived parental psychopathology provided a significant improvement in fit, adjusted $R^2 = .47$, $\Delta F(6, 426) = 32.64$, $p < .001$, with positive perceptions of mothers, maternal depression problems, paternal depression problems, and paternal anxiety problems being significant predictors. In step 3, interaction terms were entered. The addition of the interaction terms did not result in significant improvement of the model, $\Delta F(12, 414) = 1.05$, $p = .398$. However, a significant interaction between maternal depression and negative perceptions of mother was found, such that higher levels of maternal depression combined with lower levels of negative perceptions predicted higher levels of emerging adult depression than maternal depression and higher levels of negative perceptions (refer to Figure 1). Statistics for this regression are displayed in Table 3.

Table 3

Summary of hierarchical regression analysis for variables predicting emerging adult depression

MODEL PREDICTORS	STEP ONE		STEP TWO		STEP THREE	
	β	SE	β	SE	β	SE
Negative POP - Mother	.252***	.060	.098	.053	.055	.094
Positive POP – Mother	-.045	.062	.113*	.056	.101	.107
Positive POP - Father	-.199**	.066	-.078	.059	-.082	.101
Negative POP - Father	.135*	.064	.014	.055	.036	.090
Maternal Depression			.287***	.076	1.11*	.435
Paternal Depression			.179*	.073	.235	.381
Paternal Anxiety			.101*	.046	-.327	.263
Maternal Depression x Negative POP – Mother					-.527*	.263

Note. * $p \leq .05$, ** $p \leq .005$, *** $p \leq .001$. POP = Perceptions of parents. Non-significant predictors are not displayed.

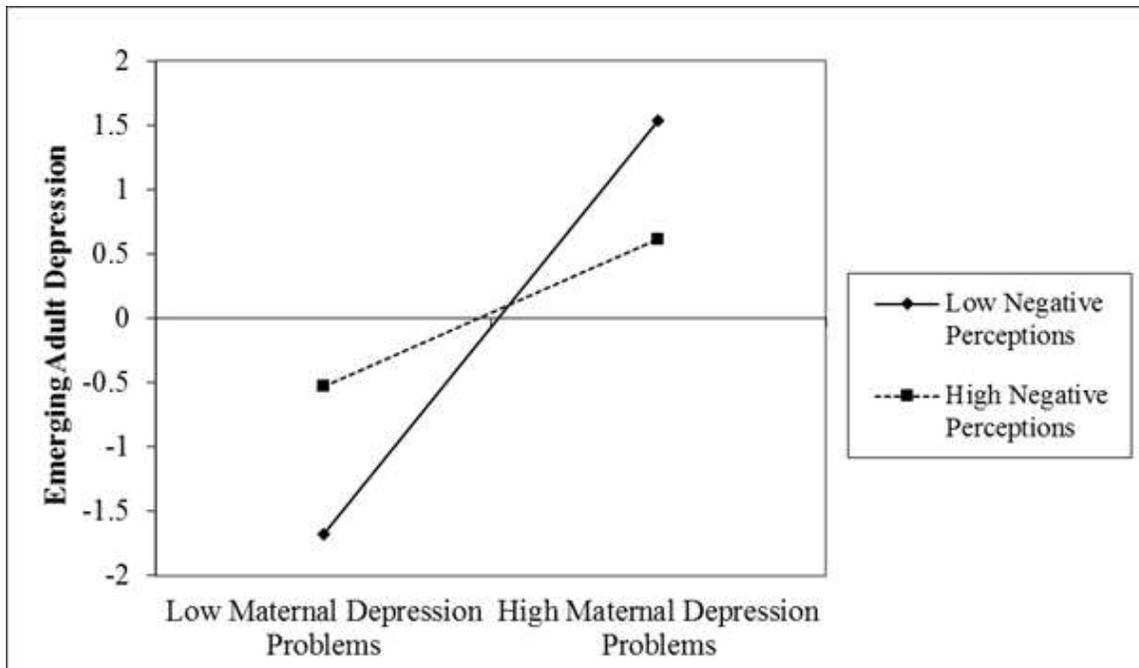


Figure 1. Interaction plot of maternal depression and negative perceptions on emerging adult depression

Note: Figure represents one standard deviation spread.

Emerging Adult Anxiety

For step 1 entering perceptions of parents, the model provided a significant fit, adjusted $R^2 = .13$, $F(4, 432) = 16.63$, $p < .001$, with negative perceptions of mothers being the only significant predictor of emerging adult anxiety. For step 2, the addition of parental psychopathology provided a significant improvement in fit, adjusted $R^2 = .34$, $\Delta F(6, 426) = 24.51$, $p < .001$, with negative perceptions of mothers, maternal psychopathology (i.e., depression, anxiety, and antisocial problems), and paternal anxiety and antisocial problems being significant predictors. For step 3, the addition of the interaction terms did not improve the overall fit of the model, $\Delta F(12, 414) = 1.49$, $p = .124$. However, a significant interaction between paternal anxiety and positive perceptions of father was revealed, such that higher levels of paternal anxiety combined

with higher levels of positive perceptions predicted higher levels of emerging adult anxiety, wherein higher levels of paternal anxiety and lower levels of positive perceptions did not (refer to Figure 2). Statistics for this regression are displayed in Table 4.

Table 4

Summary of hierarchical regression analysis for variables predicting emerging adult anxiety

MODEL PREDICTORS	STEP ONE		STEP TWO		STEP THREE	
	β	SE	β	SE	β	SE
Negative POP - Mother	.283***	.065	.191**	.060	.260*	.107
Positive POP – Father	-.125	.073	-.030	.067	-.180	.114
Maternal Depression			.172*	.086	.524	.492
Maternal Anxiety			.281***	.052	-.062	.291
Paternal Anxiety			.261***	.052	-.293	.297
Maternal Antisocial Problems			-.235**	.082	-.232	.453
Paternal Antisocial Problems – Father			.233**	.084	.538	.482
Paternal Anxiety x Positive POP – Father					.551*	.233

Note. * $p < .05$, ** $p < .005$, *** $p < .001$. POP = Perceptions of parents. Non-significant predictors are not displayed.

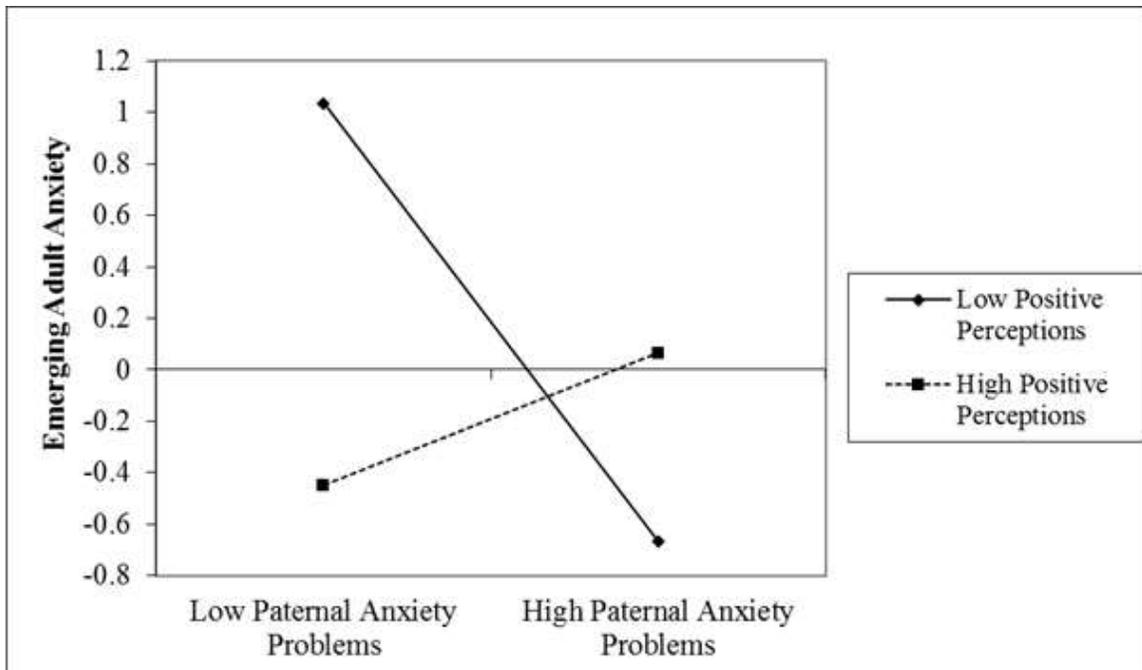


Figure 2. Interaction plot of paternal anxiety and positive perceptions on emerging adult anxiety

Note: Figure represents one standard deviation spread.

Emerging Adult Antisocial Problems

For step 1 entering perceptions of parents, the model provided a significant fit, adjusted $R^2 = .26$, $F(4, 428) = 38.72$, $p < .001$, with negative perceptions of mothers and positive perceptions of fathers being significant predictors of emerging adult antisocial problems. The addition of parental psychopathology variables in step 2 provided a significant improvement in fit, adjusted $R^2 = .54$, $\Delta F(6, 422) = 43.39$, $p < .001$, with positive perceptions of fathers remaining significant, and maternal depression, maternal antisocial problems, paternal depression, and paternal anxiety as significant predictors. The addition of the interaction terms in step 3 resulted in a significant improvement in fit, adjusted $R^2 = .56$, $\Delta F(12, 410) = 2.96$, $p = .001$. Statistics for this regression are displayed in Table 5.

Significant interactions were revealed between maternal depression and positive perceptions of mother, maternal depression and negative perceptions of mother, maternal antisocial problems and positive perceptions of mother, and maternal antisocial problems and negative perceptions of mother. For maternal depression and positive perceptions, higher levels of maternal depression and lower levels of positive perceptions predicted higher levels of emerging adult antisocial problems than low levels of maternal depression and high positive perceptions (refer to Figure 3). For maternal depression and negative perceptions, higher levels of maternal depression and lower levels of negative perceptions predicted higher levels of emerging adult antisocial problems than low levels of maternal depression and high negative perceptions (refer to Figure 4). For maternal antisocial problems and positive perceptions, higher levels of maternal antisocial problems and high levels of positive perceptions predicted higher levels of emerging adult antisocial problems than high levels of maternal antisocial problems and low positive perceptions (refer to Figure 5). Finally, for maternal antisocial problems and negative perceptions, higher levels of maternal antisocial problems and high levels of negative perceptions predicted higher levels of emerging adult antisocial problems than high levels of maternal antisocial problems and low negative perceptions (refer to Figure 6).

Table 5

Summary of hierarchical regression analysis for variables predicting emerging adult antisocial problems

MODEL PREDICTORS	STEP ONE		STEP TWO		STEP THREE	
	β	SE	β	SE	β	SE
Negative POP - Mother	.251***	.060	.088	.050	.117	.085
Positive POP – Mother	-.073	.061	.133*	.052	.185	.097
Positive POP – Father	-.250***	.065	-.146**	.055	-.117	.092
Maternal Depression			.234**	.071	1.24**	.395
Paternal Depression			.195**	.069	.494	.347
Paternal Anxiety			.105*	.043	.246	.239
Maternal Antisocial Problems			.225***	.067	-.788*	.365
Paternal Antisocial Problems					-.225	.388
Maternal Depression x Positive POP - Mother					-.632*	.247
Maternal Depression x Negative POP - Mother					-.592*	.239
Maternal Antisocial x Positive POP - Mother					.682**	.218
Maternal Antisocial x Negative POP - Mother					.514*	.239

Note. * $p < .05$, ** $p < .005$, *** $p < .001$. POP = Perceptions of parents. Non-significant predictors are not displayed.

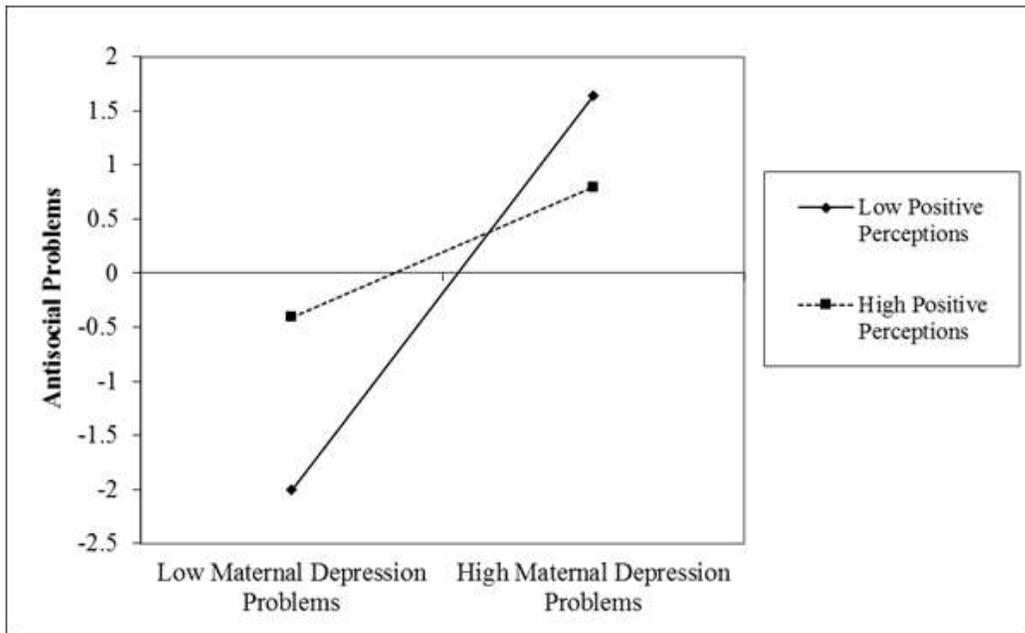


Figure 3. Interaction plot of maternal depression and positive perceptions on emerging adult antisocial problems

Note. Figure represents one standard deviation spread.

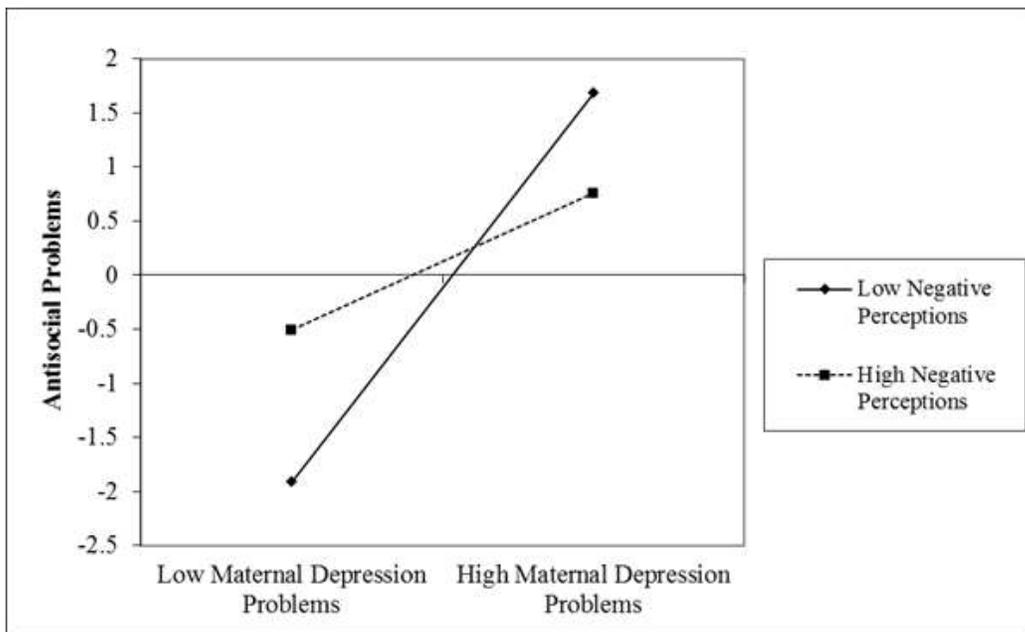


Figure 4. Interaction plot of maternal depression and negative perceptions on emerging adult antisocial problems

Note. Figure represents one standard deviation spread.

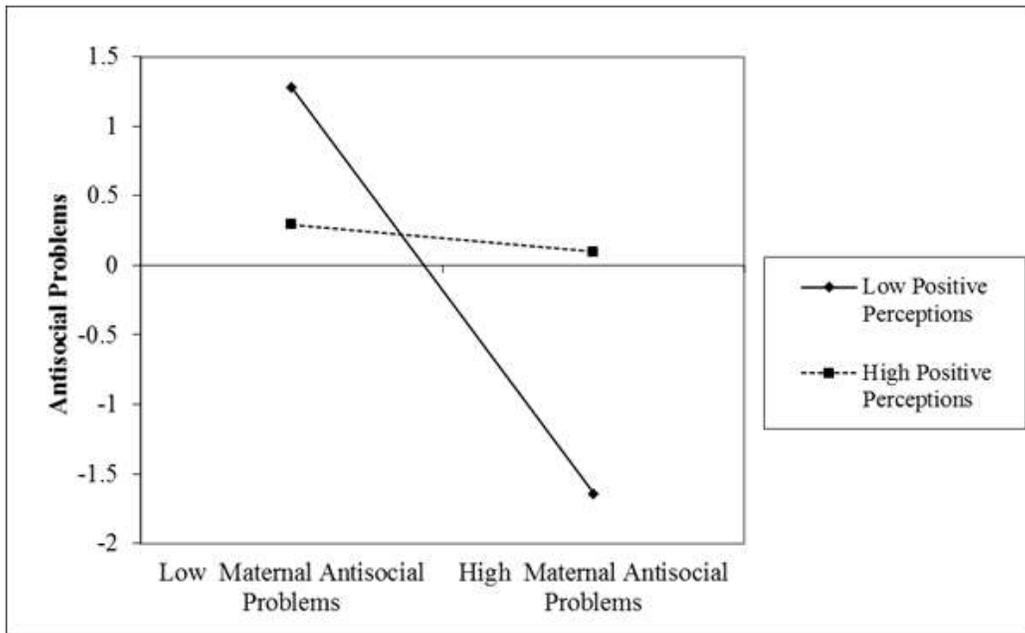


Figure 5. Interaction plot of maternal antisocial problems and positive perceptions on emerging adult antisocial problems

Note: Figure represents one standard deviation spread.

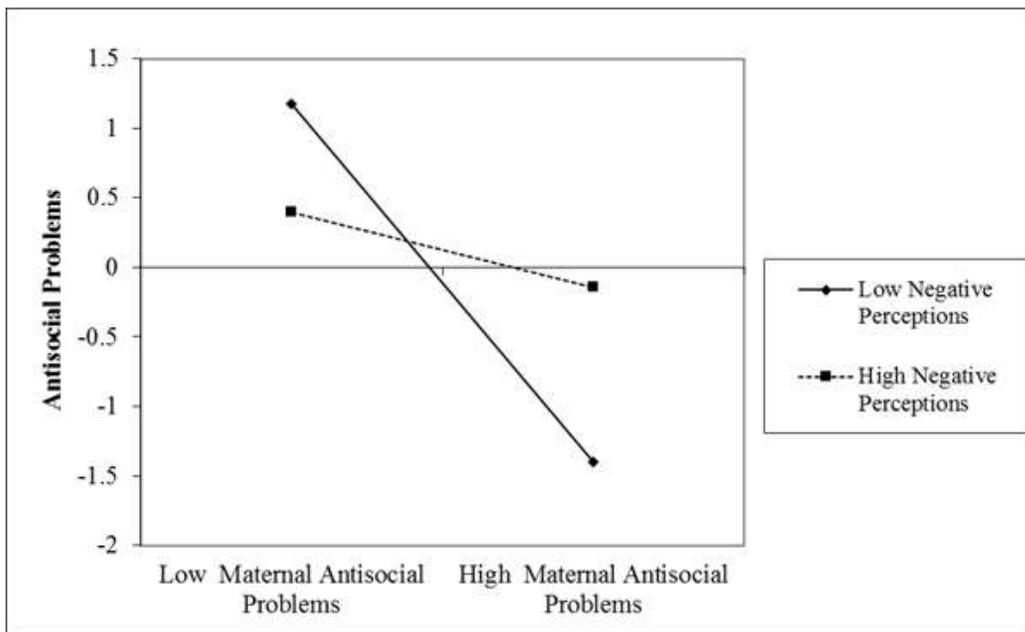


Figure 6. Interaction plot of maternal antisocial problems and negative perceptions on emerging adult antisocial problems

Note: Figure represents one standard deviation spread.

CHAPTER IV

DISCUSSION

The current study aimed to further investigate the relationship between perceptions of parents, parental psychopathology, and emerging adult psychopathology. More specifically, the current study tested a model examining if perceptions of parents moderate the relationship between parental psychopathology and emerging adult psychopathology. It was hypothesized that emerging adult perceptions of parental psychopathology would have a positive relationship with emerging adult psychopathology, perceived parental psychopathology would have a negative relationship with positive perceptions of parents, and positive perceptions of parents would have a negative relationship with emerging adult psychopathology. Lastly, it was hypothesized that the relationship shared between perceived parental psychopathology and emerging adult psychopathology would be moderated by emerging adults' perceptions of their parents.

Consistent with previous research (e.g., Goodman & Gotlib, 1999; Cummings & Davies, 1999; Kim-Cohen et al., 2005) and hypothesis 1, results of the current study suggested that perceived parental psychopathology was related to greater psychological problems in emerging adults. More specifically, parental anxiety, depression, and antisocial tendencies all were associated positively with emerging adult anxiety, depression, and antisocial tendencies. These findings are not surprising given the

abundance of research that has linked parental psychopathology with child psychopathology both biologically and environmentally (Goodman & Gotlib, 1999, Marmorstein & Iacono, 2004; Papp, Cummings, & Goeke-Mory, 2005).

Confirming hypothesis 2, results indicated that perceived parental psychopathology was associated with emerging adults' perceptions of their parents. That is, perceived parental psychopathology appeared to have a negative relationship with positive views of a parent and vice versa. This finding is consistent with the work of Bosco and colleagues (2003). It may be the case that a parent with psychopathology exhibits behaviors that are upsetting to the child (e.g., over-control, rejection, neglect), thus resulting in a less than favorable perception of the parent. On the other hand, it may be that the distorted cognitions associated with some forms of psychopathology, such as depression, influences how the parent views the child's behavior and their parenting practices (e.g., physical punishment; Callender, Olson, Choe, & Sameroff, 2011). Consequently, the use of negative parenting practices may result in holding negative perceptions of a parent (McKinney, Donnelly, & Renk, 2008).

Confirming hypothesis 3, results indicated that perceptions of parents were associated with emerging adult psychological problems. More specifically, holding positive perceptions of a parent is negatively related to emerging adult psychological problems, whereas holding negative perceptions is positively related to psychological problems. This finding is not surprising given the existing research that indicates a strong relationship between perceptions of parents and offspring psychopathology (Phares & Renk, 1998; Yahav, 2006). Additionally, it may be that holding negative perceptions of a parent results in the child avoiding the parent; thus, hindering the

development of a supportive relationship. Moreover, existing work on avoidant attachment (see Mikulincer & Shaver, 2008 for a review) has indicated adults with avoidant attachment styles may have difficulty in regulating their affect and mood (Wei, Vogel, Ku, & Zakalik, 2005). It also could be the case that emerging adults with psychological problems tend to remember things negatively. That is, emerging adults with problems may view their parents more negatively as a result of their psychological problems.

Partially supporting hypothesis 4, the current study found that in some contexts, perceptions of parents moderated the relationship between parental psychopathology and internalizing problems in emerging adults. A significant interaction between positive perceptions and paternal anxiety indicated that holding more positive perceptions about a father with anxiety predicted higher levels of emerging adult anxiety than holding few positive perceptions about a father both with anxiety as well as holding many positive perceptions about a father without anxiety. However, an interaction between low positive perceptions about a father without anxiety predicted the highest level of emerging adult anxiety. Thus, it would appear that when observing the relationship between parental and emerging adult psychopathology, viewing an anxious father more positively puts an emerging adult at a greater risk for developing anxiety than if the emerging adult held few positive perceptions, consistent with the hypothesis. It may be the case that if an emerging adult has positive views about a father with anxiety (i.e., likes the parent), then he/she may be more likely to model the parent's symptomatic behavior (e.g., over-control). However, it also is important to note that the interaction indicated that emerging adults who hold low positive perceptions of a father without psychopathology are at the

greatest risk for the development of anxiety problems. This finding is in line with existing research (Phares & Renk, 2008; Bosco et al., 2003; Yahav, 2006), but further emphasizes the importance of perceptions of parents when examining the relationship between parental and emerging adult psychopathology. It may be that parental psychopathology serves as an explanation for symptomatic behavior or ineffective parenting practices, thus allowing the child to view the parent separately from his/her behavior. On the other hand, a parent without psychopathology that engages in ineffective parenting practices may simply be viewed as a “bad parent” without any reasoning for his/her behavior, resulting in fewer positive perceptions of that parent.

In addition, a significant interaction between maternal depression and negative perceptions revealed that holding few negative perceptions about a mother with depression predicted a greater amount of emerging adult depression than holding many negative perceptions, consistent with the hypothesis. This suggests that an absence of negative perceptions about a mother with depression may put an emerging adult at a greater risk for developing depression. It could be that holding negative perceptions about a parent with psychopathology serves as a buffer and ultimately protects the child from ineffective parenting behaviors associated with depression (e.g., rejection, neglect). Nevertheless, these findings are in contrast to prior research (e.g., Yahav, 2006, which indicated that positive perceptions of parents were beneficial for child adjustment), in that holding more positive perceptions, or few negative perceptions, of a parent with anxiety or depression may actually lead to the development of internalizing problems in emerging adults.

The way in which perceptions moderated the relationship between parental psychopathology and emerging adult externalizing problems appeared to be different than with internalizing problems. A significant interaction between maternal depression and positive perceptions revealed that holding few positive perceptions of a depressed mother puts an emerging adult at a greater risk for the development of antisocial problems than holding greater positive perceptions. A significant interaction also revealed that having few negative perceptions of a depressed mother is more predictive of antisocial problems in emerging adults than having many negative perceptions. At first glance, these findings appear to be contradictory. However, it may be that feeling indifferent (i.e., neither positive nor negative) towards a parent with psychopathology also influences emerging adult psychopathology. For example, an emerging adult may not feel overly positive or negative towards a parent who may have displayed antisocial behaviors (e.g., harsh and rejecting). The POP measure only evaluates feelings of positive or negative affect and possibly overlooks emerging adults who may hold feelings of indifference towards their parents. However, it may be that an emerging adult with higher levels of antisocial behavior may be more likely to have lower levels of emotional engagement (e.g., psychopathy) with a parent.

Additionally, a significant interaction between maternal antisocial problems and positive perceptions indicated that holding many positive perceptions of a mother with antisocial problems predicted higher amounts of antisocial problems in emerging adults. Yet, the same pattern of association also was found for maternal antisocial problems and negative perceptions (i.e., maternal antisocial problems and high negative perceptions). Thus, it would appear that feeling overly positive or overly negative about a mother with

antisocial tendencies puts an emerging adult at a greater risk for developing antisocial tendencies themselves. It could be that an emerging adult who feels overly positive may identify with and model the mother's behavior. At the same time, an emerging adult who feels overly negative towards a mother with antisocial problems may rebel and act out as a way of distancing themselves from the parent. Perhaps emerging adults with positive perceptions of mothers with antisocial tendencies engage in that same behavior with their mothers (i.e., antisocial behavior is a bonding mechanism thus resulting in positive perceptions), whereas emerging adults with negative perceptions of mothers with antisocial tendencies are the target of their mother's antisocial behavior.

Given the contradictory findings for emerging adult externalizing problems, it may be that the broad categories of problems defined as antisocial problems (i.e., rule breaking behavior, aggressive behavior) on the ASR are, in fact, too broad. The construct validity of antisocial problems has been called into question and research has suggested that aggressive and rule-breaking behavior may represent separate components of psychopathology with different etiologies (Hopwood et al., 2009). It may be that items that load onto the antisocial scale of the ASR and ABCL encapsulate a wide array of problems that do not necessarily constitute one distinct category of psychopathology, thus, making it difficult to identify the direction of these relationships.

Research and Policy Implications

The current study adds to the literature by further investigating the relationships between parental psychopathology, perceptions of parents, and offspring psychopathology. Existing research has found that, separately, these variables are associated the development of psychopathology; yet, less research has focused on how

perceptions of parents influence the relationship between parental and offspring psychopathology. In addition, less is known about how these factors affect emerging adults. The results of the current study add to the literature by indicating that how emerging adults feel about a parent with psychopathology may influence the degree of psychopathology in emerging adults. Given the results of the current study, perceptions of parents should be further examined as a variable in parenting and psychopathology research. Additionally, the findings highlight some of the potential problems with how perceptions of a parent are measured (e.g., feelings of indifference). The authors of the original POP measure explained that items that measured indifference were eliminated during the formulation of the measure due to the fact that the items were confusing to adolescents (Phares & Renk, 1998). However, this misunderstanding of feeling indifferent may not be the case with emerging adults. As such, future research could modify the POP to include feelings of indifference, especially when working with older populations.

The current study also has implications for mental health providers who work with youth and parents. Research has already indicated that the perceptions that a child holds of a parent's behavior, whether accurate or not, influences the development of psychological symptoms as they grow older (Young, Lennie, & Mennis, 2011). The current study reiterates this finding for emerging adults. Given this finding, more emphasis should be placed on perceptions of parents as a risk factor of psychopathology when assessing youth. The findings of the current study also suggest that helping parents with their own psychopathology may be associated with changes in children's

psychopathology, although caution should be used given the correlational nature of the current study.

Limitations

The findings of the current study must be interpreted with caution as it is not without limitations. The generalizability of the current study's findings is limited given that the sample consisted of college undergraduates, who were predominately female and Caucasian or African American. However, the current study aimed to examine emerging adults, thus the sample may indeed be reflective of common college-age students. At the same time, the results may not be generalizable to emerging adults who do not attend college or who may be from a different ethnic background. Future studies should aim to utilize samples with diverse ethnic and socioeconomic backgrounds to enhance generalizability.

The current study also was limited in that it relied on emerging adult self report. It may be that an emerging adult's self report of their parent's psychological problems results in an inaccurate depiction of parental psychopathology. However, research has indicated that if the rater is familiar with the ratee, then he/she is able to provide valid and reliable information (Achenbach & Rescorla, 2003). At the same time, it also can be argued that the emerging adult's own perception of a parent's behavior may be more important than what actually occurred (Young, Lennie, & Minnis, 2011), and that this perception is more reliable in emerging adults than younger children (Finley et al., 2008).

Finally, causal implications of the current study's findings are constrained by the use of correlational design. Results from the current study only indicate that a relationship exists amongst the variables under examination and claims of causality

cannot be made. In other words, the current study cannot conclude that parental psychopathology causes emerging adult psychopathology, or that parental psychopathology causes the emerging adult to view a parent more positively or negatively. Future research could employ a longitudinal design that examines these questions more closely. For example, a longitudinal design that follows a child from childhood through emerging adulthood could examine whether the presence of parental psychopathology affects how the child views the parent and if that perception influences the modeling of symptomatic behavior and the development of psychopathology.

Summary

In conclusion, the current study examined how emerging adults' perceptions of their parents moderated the relationship between parental psychopathology and emerging adult psychopathology. Results appeared to suggest that emerging adults who have positive perceptions, or lack of negative perceptions, of an anxious father or a depressed mother are at a greater risk for the development of the same internalizing problems as their parents. However, the influence that positive or negative perceptions had on emerging adult externalizing problems was contradictory. Nevertheless, how an emerging adult feels about a parent with psychopathology appears to moderate the relationship between parental and emerging adult psychopathology. Future research on parenting and emerging adults should include perceptions of parents as a risk factor for the development of psychopathology. In addition, future research should modify existing measures of perceptions of parents to include feelings other than positive and negative affect (i.e., indifference). Lastly, individuals that work with youth and their parents

should focus on the treatment of parental psychopathology, as well as encourage positive parent-child interactions.

REFERENCES

- Achenbach T. M., & Rescorla L. A. (2003). *Manual for the ASEBA adult forms & profiles*. University of Vermont, Research Center for Children, Youth, & Families, Burlington, VT.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychology*, *55*, 469-480. doi:10.1037/0003-066X.55.5.469
- Aunola, K. & Nurmi, J. E. (2005). The role of parenting styles in children's problem behaviors. *Journal of Child Development*, *76*, 1144-1159. doi:10.1111/j.1467-8624.2005.00840.x-i1
- Bandura, A. (1977). *Social Learning Theory*. New Jersey: Prentice Hall.
- Bank, L., Forgatch, M. S., Patterson, G. R., & Fetrow, R. A. (1993). Parenting practices of single mothers: Mediator of negative contextual factors. *Journal of Marriage and Family*, *55*(2), 371-384. doi:10.2307/352808
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monograph*, *4*(1), 1-103. doi:10.1037/h0030372
- Baumrind, D. (1991). Effective parenting during the early adolescent transition. In P. A. Cowan (Ed.), *Family Transitions* (111-163). Lawrence Erlbaum Associates: New Jersey.

- Blackson, T. C., Tarter, R. E., & Mezzich, A. C. (1996). Interaction between childhood temperament and parental discipline practices on behavioral adjustment of preadolescent sons of substance abuse and normal fathers. *American Journal of Drug and Alcohol Abuse, 22*, 335-348.
- Bosco, G. L., Renk, K., Dinger, T. M., Epstein, M. L., & Phares, V. (2003). The connections between adolescents' perceptions of parents, parental psychological symptoms, and adolescent functioning. *Journal of Applied Developmental Psychology, 24*, 179 – 200. doi:10.1016/S0193-3973(03)00044-3
- Bowlby, J. (1977). The making and breaking of affectional bonds: I. Aetiology and psychopathology in the light of attachment theory. *The British Journal of Psychiatry, 130*, 201-210. doi:10.1192/bjp.130.3.20
- Buri, J. R. (1991). Parental Authority Questionnaire. *Journal of Personality Assessment, 57*, 110-119. doi:10.1207/s15327752jpa5701_13
- Burstein, M., & Ginsburg, G. S. (2010). The effect of parental modeling of anxious behaviors and cognitions in school aged children: An experimental pilot study. *Behavior Research and Therapy, 48*, 506-515.
- Burnstein, M., Ginsburg, G. S., & Tein, J. -Y. (2010). Parental anxiety and child symptomology: An examination of additive and interactive effects of parent psychopathology. *Journal of Abnormal Child Psychology, 38(7)*, 897-809. doi:10.1007/s10802-010-9415-0

- Callender, K. A., Olson, S. L., Choe, D. E., & Sameroff, A. J. (2011). The effects of parental depressive symptoms, appraisals, and physical punishment on later child externalizing behavior. *Journal of Abnormal Child Psychology*, *40*, 471-483. doi:10.1007/s10802-011-9572-9
- Capaldi, D. M., & Patterson, G. R. (1991). Relation of parental transitions to boy's adjustment problems: I. A linear hypothesis; II. Mothers are risk for transitions and unskilled parenting. *Developmental Psychology*, *27*(3), 489-504. doi: 10.1037/0012-1649.27.3.489
- Capaldi, D. M., Pears, K. C., Kerr, D. C., & Owen, L. D. (2008). Intergenerational and partner influences on fathers' negative discipline. *Journal of Abnormal Child Psychology*, *36*, 347-358. doi:10.1007/s10802-007-9182-8
- Chorpita, B. F., & Barlow, D. H. (1998). The development of anxiety: The role of control in the early environment. *Psychological Bulletin*, *124*, 3-21. doi: 10.1037/0033-2909.124.1.3
- Connell, A. M., & Goodman, S. H. (2002). The association between psychopathology in fathers versus mothers and children's internalizing and externalizing behavior problems: A meta-analysis. *Psychological Bulletin*, *128*(5), 746-773. doi: 10.1037/0033-2909.128.5.746
- Cummings, E. M., & Davies, P. T. (1999). Depressed parents and family functioning: Interpersonal effects and children's functioning and development. In T. Joiner & J. C. Coyne (Eds.), *Advances in interpersonal approaches: The interactional nature of depression* (299-327). Washington, DC: American Psychological Association. doi:10.1037/10311-011

- Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin, 108*(1), 50-76. doi:10.1037/0033-2909.108.1.50
- Drake, K. L., & Ginsburg, G. S. (2011). Parenting practices of anxious and nonanxious mothers: A multi-method, multi-informant approach. *Child and Family Behavior Therapy, 33*, 299-321. doi:10.1080/07317107.2011.623101
- Elgar, F. J., Mills, R. S. L., McGrath, P. J., Waschbusch, D. A., & Brownridge, D. A. (2007). Maternal and paternal depressive symptoms and child maladjustment: The mediating role of parental behavior. *Journal of Abnormal Child Psychology, 35*, 943-955. doi:10.1007/s10802-007-9145-0
- Elkins, I., McGue, M., & Iacono, W. (1997). Genetic and environmental influences on parent-son relationships: evidence for increasing genetic influence during adolescence. *Developmental Psychology, 33*, 351-363. doi:10.1002/1096-8628
- Feinburg, M. E., Button, T. M., Neiderhiser, J. M., Reiss, D., & Hetherington, E. M. (2007). Parenting and adolescent antisocial behavior and depression: Evidence of genotype X parenting environment interaction. *Archives of General Psychiatry, 64*, 457-465. doi:10.1001/archpsyc.64.4.457
- Finley, G. E., Mira, S. D., & Schwartz, S. J. (2008). Perceived paternal and maternal involvement: Factor structures, mean differences, and parental roles. *Fathering, 6*, 62-68. doi:10.3149/fth.0601.62
- Finley, G. E., & Schwartz, S. J. (2007). Father involvement and long-term young adult outcomes: The roles of divorce and gender. *Family Court Review, 45*, 571-587. doi:10.1111/j.1744-1617.2007.00172.x

- Gershoff, E. T. (2002). Corporal punishment by parents and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*, *128*(4), 539-579. doi:10.1037/0033-2909.128.4.539
- Goodman, S., & Gotlib, I. (1999). Risk for psychopathology in the children of depressed mothers: A developmental model for understanding the mechanisms of transmission. *Psychological Review*, *106*, 458-490. doi:10.1037/0033-295X.106.3.458
- Hardie, D. (1999). The transition from late adolescence to young adulthood: Student life. In D. Hindle, M.V. Smith (Eds), *Personality development: A Psychoanalytic Perspective* (158-174). Florence, KY: Taylor and Frances/Routledge.
- Harold, G. T., Elam, K. K., Lewis, G., Rice, F., & Thapar, A. (2012). Interparental conflict, parent psychopathology, and child antisocial behavior: Examining the role of maternal versus parental influences using a novel genetically sensitive research design. *Development and Psychopathology*, *24*, 1283-1295. doi:10.1017/S0954579412000703
- Hopwood, C. J., Burt, S. A., Markowitz, J. C., Yen, S., Tracie, S. M., Sanislow, C. A., . . . Morey, L. C. (2009). The construct validity of rule-breaking and aggression in an adult clinical sample. *Journal of Psychiatric Research* *43*(8), 803-808. doi:10.1016/j.jpsychires.2008.07.008
- Jaffee, S. R., Belsky, J., Harrington, H., Caspi, A., & Moffitt, T. E. (2006). When parents have a history of conduct disorder: How is the caregiving environment affected? *Journal of Abnormal Psychology*, *115*, 309-319. doi:10.1037/0021-843X.115.2.309

- Kane, P., & Garber, J. (2009). Parental depression and child externalizing and internalizing symptoms. Unique effects of fathers' symptoms and perceived conflict as a mediator. *Journal of Child and Family Studies, 18*, 465-472. doi:10.1007/s10826-008-9259-x
- Kendler, K. S., Aggen, S. H., & Patrick, C. J. (2012). A multivariate twin study of the DSM-IV criteria for antisocial personality disorder. *Biological Psychiatry 71(3)*, 247-253. doi:10.1016/j.biopsych.2011.05.019
- Kim-Cohen, J., Moffit, T. E., Taylor, A., Pawlby, S., Caspi, A. (2005). Maternal depression and children's antisocial behavior: Nature and nurture effects. *Archives of General Psychiatry, 65(2)*, 173-181. doi:10.1001/archpsyc.62.2.173
- Laskey, B. J., & Cartwright-Hatton, S. (2009). Parental discipline behaviors and beliefs about their child: Associations with child internalizing and mediation relationships. *Child: Care Health and Development, 35*, 717-727. doi:10.1111/j.1365-2214.2009.00977.x
- Lindhout, I., Markus, M.T., Hoogendijk, T., Borst, S. R., Maingay, R., Spinhoven, P., Dyck, R. van, & Boer, F. (2006). Childrearing style of anxiety disorder parents. *Child Psychiatry and Human Development, 37*, 89 -102. doi:10.1007/s10578-006-0022-9
- Marmorstein, N. R., & Iacono, W. G. (2004). Major depression and conduct disorder in youth: associations with parental psychopathology and parent-child conflict. *Journal of Child Psychology and Psychiatry, 45*, 377-386. doi:10.1111/j.1469-7610.2004.00228.x

- McKinney, C., Donnelly, R., & Renk, K. (2008). Perceived parenting, positive and negative perceptions of parents, and late adolescent emotional adjustment. *Child and adolescent mental health, 13*, 66-73.
- McKinney, C. & Milone, M. C. (2012). Parental and late adolescent psychopathology: Mothers may provide support when needed most. *Journal of child psychiatry and human development. 43*, 747-760. doi:10.1007/s10578-012-0293-2
- McKinney, C., Milone, M.C., & Renk, K. (2011). Parenting and late emotional adjustment: Mediating effects of discipline and gender. *Child psychiatry human development, 42*, 463-481. doi:10.1007/s10578-011-0229-2
- McKinney, C., & Renk, K. (2008). Multivariate models of parent-late adolescent gender dyads: The importance of underlying processes in predicting emotional adjustment. *Journal of child psychiatry and human development, 39*, 147-170. doi:10.1007/s10578-007-0078-1
- Merikangas, K. R., Dierker, L. C., & Szamari, P. (1998). Psychopathology among offspring of parents with substance abuse and/or anxiety disorder. A high risk study. *Journal of Child Psychology and Psychiatry, 39*, 711-720. doi: 10.1111/1469-7610.00370
- Mikulincer, M., & Shaver, P. R. (2008). Adult attachment and affect regulation. In J. Cassidy and P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (503-531). New York, NY: Guildford Press.
- Mufson, L., Weissman, M. M., & Warner, V. (1992). Depression and anxiety in parents and children: A direct interview study. *Journal of Anxiety Disorders, 6*, 1-13. doi:10.1016/0887-6185(92)90021-X

- Papp, L., Cummings, & E. Goeke-Morey, M. (2005). Parental psychological distress, parent-child relationship qualities, and child adjustment: Direct, mediating, and reciprocal pathways. *Parenting: Science and Practice, 5*, 259-283.
doi:10.1207/s15327922par0503_2
- Parke, R. D., & Deur, J. (1972). Schedule of punishment and inhibition of assault in children. *Developmental Psychology, 7*, 266-269. doi: 10.1037/h0033347
- Paulussen-Hoogeboom, M. C., Stams, G. J. J. M., Hermanns, J. M. A., Peetsma, T. T. D., & Wittenboer, G. L. H. (2008). Parenting style as a mediator between children's negative emotionality and problematic behavior in early childhood. *Journal of Genetic Psychology, 169*, 209-226. doi:10.3200/GNTP.169.3.09-226
- Phares, V., & Renk, K. (1998) Perceptions of parents: A measure of adolescents' feelings about their parents. *Journal of Marriage and Family, 60(3)*, 646-659.
- Rescorla, L., & Achenbach, T. (2004). The Achenbach system of empirically based assessment (ASEBA) for ages 18 to 90 years. *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment: Instruments for Adults (3rd ed)*, (115-152). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Renk, K., McKinney, C., Klein, J., & Oliveros, A. (2006). Childhood discipline, perceptions of parents, and current functioning in female college students. *Journal of Adolescence, 29*, 73-88. doi:10.1016/j.adolescence.2005.01.006
- Rueger, S. Y., Katz, R. L., Risser, H. J., & Lovejoy, M. C. (2011). Relations between parental affect and parenting behaviors: A meta-analytic review. *Parenting: Science and Practice, 11*, 1-33. doi:10.1080/15295192.2011.539503

- Van Der Bruggen, C. O., Stams, G. J. J. M., & Bogels, S. M. (2008). Research review: The relation between child and parent anxiety and parental control: A meta-analytic review. *Journal of Child Psychology and Psychiatry*, *49*, 1257-1269. doi: 10.1111/j.1469-7610.2008.01898.x
- Warner, V., Weissman, M. M., Mufson, L., & Wickramaratne, P. J. (1999). Grandparents, parents, and grandchildren at high risk for depression: A three-generation study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *38*, 289 – 296. doi:10.1097/00004583-199903000-00016
- Wei, M. Vogel, D. L. Ku, T., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating role of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology*, *52(1)*, 14-24. doi: 10.1037/0022-0167.52.1.14
- Wood, J. J., McLeod, B. D., Sigman, M., W. C. - Hwang, & Chu, B. C. (2003). Parenting and childhood anxiety: theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry*, *44*, 134-151. doi:10.1111/1469-7610.00106
- Yahav, R. (2006). The relationship between children's and adolescent's perceptions of parenting style and internal and external symptoms. *Child Care, Health, and Development*, *33*, 460-471. doi:10.1111/j.1365-2214.2006.00708.x
- Young, R., Lennie, S., & Minnis, H. (2011). Children's perceptions of parental emotional neglect and control and psychopathology. *Journal of Child Psychology and Psychiatry*, *52(8)*, 889-897. doi:10.1111/j.1469-7610.2011.02390.x

APPENDIX A

ADULT SELF REPORT/ADULT BEHAVIOR CHECKLIST

Adult Self-Report/Adult Behavior Checklist

Below is a list of items that describe people. As you read each item, please decide whether it has been true of your SELF and the people you believe most to be your MOTHER and FATHER over the past 6 months. Then select 0, 1, or 2 according to the scale provided below to describe the person. Please answer all items as well as you can, even if some do not seem to apply.

0 = Not True

1 = Somewhat or Sometimes True

2 = Very True or Often True

1. Is too forgetful

Self: _____ Mother: _____ Father: _____

2. Makes good use of his/her opportunities

Self: _____ Mother: _____ Father: _____

3. Argues a lot

Self: _____ Mother: _____ Father: _____

4. Works up to ability

Self: _____ Mother: _____ Father: _____

5. Blames others for own problems

Self: _____ Mother: _____ Father: _____

6. Uses drugs (other than alcohol or nicotine) for nonmedical purposes

Self: _____ Mother: _____ Father: _____

7. Bragging, boasting

Self: _____ Mother: _____ Father: _____

8. Can't concentrate, can't pay attention for long

Self: _____ Mother: _____ Father: _____

9. Can't get mind off certain thoughts; obsessions

Self: _____ Mother: _____ Father: _____

10. Can't sit still, restless, or hyperactive

Self: _____ Mother: _____ Father: _____

11. Too dependent on others
 Self: _____ Mother: _____ Father: _____
12. Complains of loneliness
 Self: _____ Mother: _____ Father: _____
13. Confused or seems to be in a fog
 Self: _____ Mother: _____ Father: _____
14. Cries a lot
 Self: _____ Mother: _____ Father: _____
15. Is pretty honest
 Self: _____ Mother: _____ Father: _____
16. Cruelty, bullying, or meanness to others
 Self: _____ Mother: _____ Father: _____
17. Daydreams or gets lost in his/her thoughts
 Self: _____ Mother: _____ Father: _____
18. Deliberately harms self or attempts suicide
 Self: _____ Mother: _____ Father: _____
19. Demands a lot of attention
 Self: _____ Mother: _____ Father: _____
20. Damages or destroys his/her own things
 Self: _____ Mother: _____ Father: _____
21. Damages or destroys things belonging to others
 Self: _____ Mother: _____ Father: _____
22. Worries about his/her future
 Self: _____ Mother: _____ Father: _____
23. Breaks rules at work or elsewhere
 Self: _____ Mother: _____ Father: _____
24. Doesn't eat well
 Self: _____ Mother: _____ Father: _____
25. Doesn't get along with other people
 Self: _____ Mother: _____ Father: _____

26. Doesn't seem to feel guilty after misbehaving
 Self: _____ Mother: _____ Father: _____
27. Easily jealous
 Self: _____ Mother: _____ Father: _____
28. Gets along badly with family
 Self: _____ Mother: _____ Father: _____
29. Fears certain animals, situations, or places
 Self: _____ Mother: _____ Father: _____
30. Poor relations with opposite sex
 Self: _____ Mother: _____ Father: _____
31. Fears he/she might think or do something bad
 Self: _____ Mother: _____ Father: _____
32. Feels he/she has to be perfect
 Self: _____ Mother: _____ Father: _____
33. Feels or complains that no one loves him/her
 Self: _____ Mother: _____ Father: _____
34. Feels others are out to get him/her
 Self: _____ Mother: _____ Father: _____
35. Feels worthless or inferior
 Self: _____ Mother: _____ Father: _____
36. Gets hurt a lot, accident-prone
 Self: _____ Mother: _____ Father: _____
37. Gets in many fights
 Self: _____ Mother: _____ Father: _____
38. His/her relations with neighbors are poor
 Self: _____ Mother: _____ Father: _____
39. Hangs around people who get in trouble
 Self: _____ Mother: _____ Father: _____

40. Hears sounds or voices that aren't there
 Self: _____ Mother: _____ Father: _____
41. Impulsive or acts without thinking
 Self: _____ Mother: _____ Father: _____
42. Would rather be alone than with others
 Self: _____ Mother: _____ Father: _____
43. Lying or cheating
 Self: _____ Mother: _____ Father: _____
44. Feels overwhelmed by responsibilities
 Self: _____ Mother: _____ Father: _____
45. Nervous, highstrung, or tense
 Self: _____ Mother: _____ Father: _____
46. Nervous movements or twitching
 Self: _____ Mother: _____ Father: _____
47. Lacks self-confidence
 Self: _____ Mother: _____ Father: _____
48. Not liked by others
 Self: _____ Mother: _____ Father: _____
49. Can do certain things better than other people
 Self: _____ Mother: _____ Father: _____
50. Too fearful or anxious
 Self: _____ Mother: _____ Father: _____
51. Feels dizzy or lightheaded
 Self: _____ Mother: _____ Father: _____
52. Feels too guilty
 Self: _____ Mother: _____ Father: _____
53. Has trouble planning for the future
 Self: _____ Mother: _____ Father: _____
54. Feels tired without good reason
 Self: _____ Mother: _____ Father: _____
55. Moods swing between elation and depression

Self: _____ Mother: _____ Father: _____

56. Physical problems **without known medical cause:**

a. Aches or pains (**not** stomach or headaches)

Self: _____ Mother: _____ Father: _____

b. Headaches

Self: _____ Mother: _____ Father: _____

c. Nausea, feels sick

Self: _____ Mother: _____ Father: _____

d. Problems with eyes (**not** if corrected by glasses)

Self: _____ Mother: _____ Father: _____

e. Rashes or other skin problems

Self: _____ Mother: _____ Father: _____

f. Stomachaches

Self: _____ Mother: _____ Father: _____

g. Vomiting, throwing up

Self: _____ Mother: _____ Father: _____

h. Heart pounding or racing

Self: _____

i. Numbness or tingling in body parts

Self: _____

57. Physically attacks people

Self: _____ Mother: _____ Father: _____

58. Picks skin or other parts of his/her body

Self: _____ Mother: _____ Father: _____

59. Fails to finish things he/she should do

Self: _____ Mother: _____ Father: _____

60. There is very little that he/she enjoys

Self: _____ Mother: _____ Father: _____

61. Poor work performance

Self: _____ Mother: _____ Father: _____

62. Poorly coordinated or clumsy

Self: _____ Mother: _____ Father: _____

63. Would rather be with older people than with people of own age
 Self: _____ Mother: _____ Father: _____
64. Has trouble setting priorities
 Self: _____ Mother: _____ Father: _____
65. Refuses to talk
 Self: _____ Mother: _____ Father: _____
66. Repeats certain acts over and over; compulsions
 Self: _____ Mother: _____ Father: _____
67. Has trouble making or keeping friends
 Self: _____ Mother: _____ Father: _____
68. Screams or yells a lot
 Self: _____ Mother: _____ Father: _____
69. Secretive, keeps things to self
 Self: _____ Mother: _____ Father: _____
70. Sees things that aren't there
 Self: _____ Mother: _____ Father: _____
71. Self-conscious or easily embarrassed
 Self: _____ Mother: _____ Father: _____
72. Worries about his/her family
 Self: _____ Mother: _____ Father: _____
73. Meets responsibilities to his/her family
 Self: _____ Mother: _____ Father: _____
74. Showing off or clowning
 Self: _____ Mother: _____ Father: _____
75. Too shy or timid
 Self: _____ Mother: _____ Father: _____
76. Irresponsible behavior
 Self: _____ Mother: _____ Father: _____
77. Sleeps more than most other people during day and/or night
 Self: _____ Mother: _____ Father: _____

78. Has trouble making decisions
 Self: _____ Mother: _____ Father: _____
79. Speech problem
 Self: _____ Mother: _____ Father: _____
- 80a. Stares blankly
 Mother: _____ Father: _____
- 80b. Stands up for own rights
 Self: _____
81. Very changeable behavior
 Self: _____ Mother: _____ Father: _____
82. Steals
 Self: _____ Mother: _____ Father: _____
83. Is easily bored
 Self: _____ Mother: _____ Father: _____
84. Strange behavior
 Self: _____ Mother: _____ Father: _____
85. Strange ideas
 Self: _____ Mother: _____ Father: _____
86. Stubborn, sullen, or irritable
 Self: _____ Mother: _____ Father: _____
87. Sudden changes in mood or feelings
 Self: _____ Mother: _____ Father: _____
88. Enjoys being with people
 Self: _____ Mother: _____ Father: _____
89. Rushes into things without considering the risks
 Self: _____ Mother: _____ Father: _____
90. Drinks too much alcohol or gets drunk
 Self: _____ Mother: _____ Father: _____
91. Talks about killing self
 Self: _____ Mother: _____ Father: _____

92. Does things that may cause trouble with the law
 Self: _____ Mother: _____ Father: _____
93. Talks too much
 Self: _____ Mother: _____ Father: _____
94. Teases a lot
 Self: _____ Mother: _____ Father: _____
95. Temper tantrums or hot temper
 Self: _____ Mother: _____ Father: _____
- 96a. Passive or lacks initiative
 Mother: _____ Father: _____
- 96b. Thinks about sex too much
 Self: _____
97. Threatens to hurt people
 Self: _____ Mother: _____ Father: _____
98. Likes to help others
 Self: _____ Mother: _____ Father: _____
99. Dislikes staying in one place for very long
 Self: _____ Mother: _____ Father: _____
100. Has trouble sleeping
 Self: _____ Mother: _____ Father: _____
101. Stays away from job even when not sick and not on vacation
 Self: _____ Mother: _____ Father: _____
102. Underactive, slow moving, or lacks energy
 Self: _____ Mother: _____ Father: _____
103. Unhappy, sad, or depressed
 Self: _____ Mother: _____ Father: _____
104. Is unusually loud
 Self: _____ Mother: _____ Father: _____
105. Is disorganized
 Self: _____ Mother: _____ Father: _____

106. Tries to be fair to others
Self: _____ Mother: _____ Father: _____

107. Feels he/she can't succeed
Self: _____ Mother: _____ Father: _____

108. Tends to lose things
Self: _____ Mother: _____ Father: _____

109. Likes to try new things
Self: _____ Mother: _____ Father: _____

110a. Makes good decisions
Mother: _____ Father: _____

110b. Wishes he/she was of the opposite sex
Self: _____

111. Withdrawn, doesn't get involved with others
Self: _____ Mother: _____ Father: _____

112. Worries
Self: _____ Mother: _____ Father: _____

113a. Sulks a lot
Mother: _____ Father: _____

113b. Worries about his/her relations with the opposite sex
Self: _____

114. Fails to pay his/her debts or meet other financial responsibilities
Self: _____ Mother: _____ Father: _____

115. Is restless or fidgety
Self: _____ Mother: _____ Father: _____

116. Gets upset too easily
Self: _____ Mother: _____ Father: _____

117. Has trouble managing money or credit cards
Self: _____ Mother: _____ Father: _____

118. Is too impatient
Self: _____ Mother: _____ Father: _____

119. He/she is not good at details

Self: _____ Mother: _____ Father: _____

120. Drives too fast

Self: _____ Mother: _____ Father: _____

121. Tends to be late for appointments

Self: _____ Mother: _____ Father: _____

122. Has trouble keeping a job

Self: _____ Mother: _____ Father: _____

123. He/she is a happy person

Self: _____ Mother: _____ Father: _____

124. **In the past 6 months**, about how many times per day did he/she use tobacco (including smokeless tobacco)?

Self: _____ times per day

Mother: _____ times per day

Father: _____ times per day

125. **In the past 6 months**, on how many days was he/she drunk?

Self: _____ days

Mother: _____ days

Father: _____ days

126. **In the past 6 months**, on how many days did he/she use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)?

Self: _____ days

Mother: _____ days

Father: _____ days

APPENDIX B
PERCEPTIONS OF PARENTS

- | | | |
|--|-----------|-----------|
| 11. How much do you feel anxious/nervous about your mother? | | |
| Not at all | Not much | Somewhat |
| Pretty much | Very much | Extremely |
| | | |
| 12. How much do you feel closeness toward your mother? | | |
| Not at all | Not much | Somewhat |
| Pretty much | Very much | Extremely |
| | | |
| 13. How much do you feel upset when you think about your mother? | | |
| Not at all | Not much | Somewhat |
| Pretty much | Very much | Extremely |
| | | |
| 14. How much do you feel appreciative of (thankful for) your mother? | | |
| Not at all | Not much | Somewhat |
| Pretty much | Very much | Extremely |
| | | |
| 15. How much do you feel positive feelings toward your mother? | | |
| Not at all | Not much | Somewhat |
| Pretty much | Very much | Extremely |

- | | | | |
|--|-------------|-----------|-----------|
| 11. How much do you feel anxious/nervous about your father? | Not at all | Not much | Somewhat |
| | Pretty much | Very much | Extremely |
| 12. How much do you feel closeness toward your father? | Not at all | Not much | Somewhat |
| | Pretty much | Very much | Extremely |
| 13. How much do you feel upset when you think about your father? | Not at all | Not much | Somewhat |
| | Pretty much | Very much | Extremely |
| 14. How much do you feel appreciative of (thankful for) your father? | Not at all | Not much | Somewhat |
| | Pretty much | Very much | Extremely |
| 15. How much do you feel positive feelings toward your father? | Not at all | Not much | Somewhat |
| | Pretty much | Very much | Extremely |

APPENDIX C
IRB APPROVAL LETTER

Christine Williams - Study 11-256: Disruptive Behavior and Parenting: Mediation Effect of Parenting Stress

From: <cwilliams@research.msstate.edu>
To: <enp31@msstate.edu>
Date: 9/29/2011 11:30 AM
Subject: Study 11-256: Disruptive Behavior and Parenting: Mediation Effect of Parenting Stress
CC: <cwilliams@research.msstate.edu>, <cwilliams@research.msstate.edu>

September 29, 2011

Emily McClelland
Psychology Department

RE: IRB Study #11-256: Disruptive Behavior and Parenting: Mediation Effect of Parenting Stress

Dear Ms. McClelland:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 9/29/2011 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at <http://www.orc.msstate.edu/human/aahrpp.php>. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email.

Please refer to your IRB number (#11-256) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or call 662-325-5220.

Sincerely,

Christine Williams, CIP
IRB Compliance Administrator

cc: Cliff McKinney (Advisor)
SONA System (Deborah Eakin)