

Parental Depression and Sociodemographic Factors: Examining Predictors of Parenting  
Behaviors

By

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## CHAPTER I

### INTRODUCTION

Children and adolescents of depressed parents experience an increased risk for psychopathology compared to children of parents without a history of depression (Gunlicks & Weissman, 2008; National Research Council and Institute of Medicine [NRC/IOM], 2009). One powerful source of risk for internalizing and externalizing problems in these children is impaired and disrupted parenting (Hammen, Brennan, & Shih, 2004). In addition, depression is associated with sociodemographic disadvantage, which has been shown to be another potent risk factor for disrupted parenting and psychopathology in children (McLaughlin, Costello, Leblanc, Sampson, & Kessler, 2012). Although these risk factors have been studied independently, relatively little attention has been paid in research to the relative associations of parental depression and sociodemographic disadvantage with parenting behaviors. The focus of the current study is to examine the relative associations of parental depressive symptoms and sociodemographic disadvantage with parenting in a sample of parents with a history of major depressive disorder (MDD).

#### **Parenting and Child Development**

Over 50 years of research has long documented the importance and benefits of warm and supportive parenting in promoting the healthy development of children (e.g., Gray & Steinberg, 1999). Parenting is a critical factor that is implicated in childhood illness, substance use, truancy, juvenile crime, and mental illness (Hoghugh, 1998). It can also serve as a buffer against adversity and a mediator of the damaging impact of adverse events (e.g., child abuse). Specifically, warm and supportive parenting behaviors may serve as one salient pathway by which parents aid their children's adaptive responses to stressful situations (Kliewer, Sandler, &

Wolchik, 1994; Power, 2004). Additionally, caregivers who are warm and supportive may serve as resources through the provision of informational, emotional, and instrumental support (Bynum & Brody, 2005; Thompson & Meyer, 2007). Two identified risk factors that has been shown to disrupt these positive parenting styles include parental depression and sociodemographic disadvantage. Yet under these circumstances, the importance of positive parenting becomes even more critical.

### **Parental Depression**

Parental depression is associated with decreased warm and responsive parenting behaviors and increased harsh, critical, and withdrawn behaviors (e.g., Hammen et al. , 2004; Jaser et al., 2005, 2008). Both self-report and observational studies have found that depressed parents are characterized by impaired communication, diminished responsiveness, and higher rates of hostility in interactions with their children (e.g., Field, 1998; Goodman, 2007; Goodman & Gotlib, 2002). In a meta-analytic review, Lovejoy, Graczyk, O'Hare, and Neuman (2000) analyzed 46 observational studies and found a moderate association between negative parenting behaviors (e.g., threatening gestures, intrusiveness, expressed anger, negative affect) and maternal depression and a small to moderate association between disengaged behaviors (e.g., withdrawal, ignoring, uninvolved, gaze aversion) and maternal depression. Since this seminal review, additional studies have found an association between maternal depression and reduced parenting quality, especially in the context of other stressors (e.g., marital stress and low social support; Taraban et al., 2017).

Previous studies investigating the association between parenting behaviors and depression have theorized that these disruptions are related to parents' symptoms of depression. More specifically, it is hypothesized that the characteristics of depression (i.e., sad mood, loss of

interest, low energy, poor concentration, worthlessness and guilt, altered sleep, suicidal ideation; American Psychiatric Association, 2013) are important factors for understanding possible contributors to parenting problems (Goodman et al., 2011). For example, parents who experience disrupted sleep and irritability may have a decreased tolerance for typical child behavior and as a result, may display more negative affect and inconsistent discipline (e.g., Murray, Halligan, & Cooper, 2010). Additionally, parents who experience sad mood, loss of interest, and fatigue as a result of their depression may withdraw more from their child, attending less effectively to their child's needs (e.g., Field, 2010; Murray, Halligan, Goodyer, & Herbert, 2010; Stein et al., 2012). The resulting disruptions in parenting contribute to a chronically stressful environment for children as their parents vacillate between withdrawn and intrusive parenting (e.g., Langrock, Compas, Keller, Merchant, & Copeland, 2002).

### **Sociodemographic and Socioeconomic Factors**

Socioeconomic and sociodemographic variables are a second significant source of risk for parenting problems in depressed individuals (Kaiser & Delaney, 1996). Research documents that these risk factors use a broad set of social, economic, and demographic variables that are important for understanding risk to psychopathology. There are several proposed measures of socioeconomic status (SES) with most including some quantification of family income, parental education, and occupational status (Bradley & Corwyn, 2002). Generally, interest in SES derives from a belief regarding a family's ability to afford their children an array of resources and experiences (Brooks-Gunn & Duncan, 1997).

A similar but distinct line of research studies the construct of sociodemographic disadvantage. There is a large and growing body of evidence that shows that sociodemographic factors (e.g., race, ethnicity, age, marital status), can also influence health outcomes (Hafkamp-

de Groen et al., 2013). The literature is complex in that these different terms are often used to encompass a different subset of similar factors that are highly correlated with each other (Reising et al., 2013). Taken together, sociodemographic variables include parental education level, unemployment, marital status, household income, teenage pregnancy, gender, and race. For the purpose of this study, we have chosen the term sociodemographic disadvantage and will be using it throughout this manuscript to refer to factors including parental education, household income, marital status, and race. When reporting upon results of previous studies, we have chosen to use the term utilized by the original authors.

### **Sociodemographic Disadvantage**

The field has widely explored how sociodemographic variables can pose a powerful and potentially caustic influence on nurturing and sensitive caregiving (e.g., Sturge-Apple, Davies, Cicchetti, & Fittoria, 2014). As parents experience sociodemographic disadvantage, their sources of supports erode, resulting in greater deficits in parenting (Valiente, Lemery-Chalfant, & Reiser, 2007). This body of empirical work unequivocally indicates that increased sociodemographic disadvantage saps parents' abilities to provide warm and supportive caregiving.

Sociodemographic disadvantage is also an important correlate of depression and serves as an additional risk factor for parenting problems in depressed individuals by exacerbating the effect of depression on parenting behaviors (Hammen & Brennan, 2002; Lorant et al., 2003; Lovejoy et al., 2000). Findings reported by Lovejoy et al. (2000) indicated that low SES moderated the association between depression and parenting behavior, including the association with positive maternal behavior. Whereas the effect size for mothers with sufficient financial resources was essentially zero ( $d = .06$ ), there was a moderate effect size for low-SES mothers in the association between their depressive symptoms and lower positive parenting behaviors ( $d =$

.42). These findings highlight that depression may not be consistently associated with lower levels of positive parenting, but this association occurs when mothers do not have adequate financial resources. Similarly, the Oregon Divorce Study, a study testing the efficacy of a preventive intervention, showed that the intervention produced reductions in coercive parenting and growth in positive parenting (Patterson, Forgatch, & Degarmo, 2010). These changes in parenting mediated the intervention effects on increased family SES. Thus, it is possible that by improving parenting, one could possibly improve SES as well.

Lorant et al. (2003) further examined the strength and direction of the relationship between low-SES and depression. This meta-analysis examined the results of 51 prevalence studies, five incidence studies, and four persistence studies and found that low-SES adults were more likely to experience depression than higher SES adults ( $OR = 1.81$ ). They also found that low-SES individuals were more likely to experience a recurrent episode of depression ( $OR = 2.06$ ) than to have a new episode ( $OR = 1.24$ ).

The association between sociodemographic disadvantage and depression is likely complex, as many disadvantaged households are faced with multiple hardships. Some of the most widely researched risk factors include single-parent status, low parental educational attainment, low household income, and minority status. These risk factors often overlap, a phenomenon that leads researchers to study the compounding effects of multiple risk factor exposure (Adler et al., 1994; Gallo & Matthews, 2003), including both the individual and cumulative contributions of the multiple, distinct variables that comprise sociodemographic disadvantage.

### **Cumulative Risk Model**

Taken together, parental depression and the factors that comprise sociodemographic

disadvantage represent the accumulation of multiple risk factors for impaired parenting. It is often reported that exposure to a single risk factor has little if any impact on an individual, whereas those who are faced with accumulated sociodemographic-related stressors and other sources of adversity are much more likely to suffer lasting negative or undesirable outcomes (e.g., Brody et al., 2013; Doan, Fuller-Rowell, & Evans, 2012). However, there is less consensus on the optimal way to measure and quantify multiple risk factor exposures.

One approach to cumulative risk (CR) models is to create a composite variable wherein a set of dichotomous risk factors (exposure = 1; no exposure = 0) are summed together. There are advantages to creating a composite metric of multiple risk factor exposure including reducing measurement error and improving the measurement validity (Evans, Li, & Whipple, 2013). Validity is enhanced because no singular sociodemographic variable adequately captures the targeted construct in entirety (Brinberg & Kidder, 1982; Ghiselli, Campbell, & Zedeck, 1981). Additionally, the CR additive technique is an easily interpretable means for developing a range of sociodemographic disadvantage. However, by calculating a composite score, important information that each variable may provide may be lost. For example, in some CR systems, a child whose parent graduated high school would receive the same score as a child whose parent completed medical school. Likewise, a child whose family earns \$49,000 may be counted as equally disadvantaged as one whose family earns \$20,000. CR models can reduce data in a way that makes it less sensitive, and by looking at each indicator separately, one can determine if all risk factors are related to the dependent variable or if the effects found are due to specific risk variables rather than all. Thus, individual indicators of risk that are quantified as continuous variables may be able to provide detailed information regarding the effects of sociodemographic disadvantage and various outcomes.

In sum, the categories represented in a dichotomous CR model may represent an arbitrary classification of underlying continuous phenomena. Therefore, another way to analyze cumulative models is to include separate continuous variables within a multiple regression model. However, the justification for either of these practices has not been readily researched, and few studies have specifically compared the association of varied measures of SES with parenting behaviors. Therefore, one focus of this study is to explore different methods of SES measurement and identify which method shows a stronger association with parenting.

### **Specificity in Parenting Behavior Dimensions**

Although the field has begun to explore the specificity of the relations between parenting behaviors (e.g., intrusive and withdrawn) and child psychopathology (e.g., internalizing and externalizing behaviors; Gruhn et al., 2016), no studies to date have assessed the extent to which risk factors (e.g., parental depression and sociodemographic disadvantage) uniquely predict observed parenting behaviors. Specificity analyses can provide an important test of these underlying processes. Specificity effects in this study are operationalized as unique effects and shown when an independent variable predicts one type of parenting behavior after the second parenting behavior is controlled for (e.g., predicting withdrawn parenting when controlling for intrusive parenting; Caron, Weiss, Harris, & Catron, 2006). Specificity analyses allow for a more stringent test of whether a risk factor is specific to one type of parenting or shared.

### **Present Study and Hypotheses**

Research has shown that children of depressed parents experience an increased risk for developing psychopathology. Two powerful mechanisms through which depression in a parent increases child/adolescent risk is the family environment associated with impaired or disrupted parenting (e.g., Hammen, 2002) and low sociodemographic status (e.g., Lovejoy et al., 2000).

While the literature on these two sources of risk exists separately, few studies assess the cumulative effects of parental depression and sociodemographic disadvantage. Additionally, no studies in this area have assessed the strengths of a cumulative risk model compared to an alternative way of operationalizing multiple risk factor exposure.

The current study examined the unique and combined associations of parental depression and sociodemographic disadvantage with parenting behaviors in parents with a history of MDD and compared two approaches to quantifying sociodemographic disadvantage. The following hypotheses were tested: (1) Parental depressive symptoms will be associated with greater levels of withdrawn and intrusive parenting. (2) Individual and cumulative measures of sociodemographic disadvantage will be associated with greater levels of intrusive and withdrawn parenting beyond that accounted for by parental depressive symptoms. (3) Both parental depressive symptoms and variables of sociodemographic disadvantage will have an independent significant effect when accounting for the other. (4) The associations of parental depressive symptoms and sociodemographic disadvantage with intrusive and withdrawn parenting will differ as a function of how sociodemographic disadvantage is quantified. Specifically, individual measures of sociodemographic disadvantage would provide a more sensitive measurement of risk (i.e., a stronger association with parenting) than the cumulative risk model. (5) Building on findings from Lovejoy et al. (2000), the final hypothesis examined cumulative sociodemographic disadvantage as a moderator of the association between parental depression and intrusive and withdrawn parenting behaviors. Specifically, it was hypothesized that levels of intrusive and withdrawn parenting would be higher in caregivers who experienced greater CR and more depressive symptoms.

## CHAPTER II

### METHOD

#### **Participants**

Participants were 180 parents who (a) had met criteria for at least one episode of MDD during the lifetime of their children and (b) had children who were aged 9-15 years. Listwise deletion was used to manage missing data (MacDonald, 2002). 159 families had complete data on all measures of interest and were used in the analyses. These participants included 143 mothers ( $M = 41.1$ ,  $SD = 7.2$ ) and 16 fathers ( $M = 48.5$ ,  $SD = 8.0$ ). For all families included in the study, parents were 80.5% white and 19.5% non-White. Parents' level of education included 6.3% without a high school degree, 8.8% completed high school or equivalency exam, 29.6% attended some college, 32.7% college graduates, and 22.6% with a graduate education. The marital statuses of the parents were 59.7% married or cohabitating with someone and 40.3% single, divorced, separated, or widowed. Annual family income ranged from less than \$5,000 to more than \$180,000. Demographic characteristics of the samples are presented in Table 2. There was adequate range and variability on the sociodemographic variables for each variable to be included in the analyses independently.

#### **Measures**

*Demographic and sociodemographic status.* Parents provided demographic data on age, race, ethnicity, education level, annual family income, and marital status. Parents reported their annual family income in one of 9 categories: (1) less than \$5,000, (2) \$5,000-\$9,999, (3) \$10,000-\$14,999, (4) \$15,000-\$24,999, (5) \$25,000-\$39,000, (6) \$40,000-\$59,999, (7) \$60,000-\$89,999, (8) \$90,000-\$179,999, and (9) \$180,000 or more. Parents reported their educational attainment in one of 5 categories (1) less than high school, (2) high school or equivalency exam,

(3) some college or technical school, (4) college graduate-4-year degree, and (5) any graduate education. Parents also reported their marital status as married or cohabitating versus single, divorced, separated and widowed. Parents identified their race as European American, African American, Asian, Latino or Hispanic, and other or mixed ethnicity.

*Parental depression symptoms.* Parental current depressive symptoms were assessed with the Beck Depression Inventory-II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996; Steer, Brown, Beck, & Sanderson, 2001), a standardized and widely used self-report checklist of depressive symptoms with adequate internal consistency, reliability, and validity (Beck et al., 1996). The BDI-II has 21-items assessing depressive symptoms on a Likert scale from 0 (no change/not at all) to 3 (significant change/severely). Some symptoms on the BDI-II include sadness, loss of interest in daily activities or hobbies, appetite, sleep, concentration, and other common depressive symptoms over a two-week period. Higher scores on the BDI-II indicate greater severity of depressive symptoms. Beck et al. (1996), have provided a framework for delineating severity of depressive symptoms with scores ranging from minimal (0-13) to mild (14-19), moderate (20-28), and severe (29-63; Beck et al., 1996). Internal consistency of the BDI-II total score for the current sample was  $\alpha = .93$ .

*Sociodemographic disadvantage.* Family sociodemographic disadvantage was assessed by parent report of household income, ethnicity, parent education, and marital status. The potential impact of sociodemographic factors was examined both with individual sociodemographic variables and separately with a CR variable. When appropriate, sociodemographic factors were scored as continuous variables. Thus, maternal education level and family income were examined as a continuous score in one set of regression analyses and dichotomous variables in separate analyses. Parental marital status (e.g., partnered versus single),

and race (e.g., white versus non-white) were dichotomized in all analyses.

*Cumulative Risk.* To assess for the cumulative impact of sociodemographic disadvantage, a CR variable was created. Each sociodemographic variable was dichotomized such that a participant either received a score of 0 or 1, indicating lessor or greater risk. Although some included risk factors were inherently binary (e.g., parental minority status), some required a decision for what level of a continuous factor constituted as “at risk.” Many researchers choose to select the upper quartile or a 1 *SD* above the mean for this categorization. However, another alternative to designate risk is to use a statistical cutoff proven to predict adverse outcomes (Kraemer, Lowe, & Kupfer, 2005). This protects against the potential issue of equating rarity (+/- 1 *SD*) with risk. Thus, both parental education status and family income were a priori defined as risk factors based on prior research.

Parental education and family income are a common a priori risk factors used in CR models. In these cases, there is sufficient data to designate any level of exposure as risk. Based off of earlier research on cumulative risk, we conservatively designated parents who had not completed high school ( $n = 10$ ) as at risk (e.g., Bemis et al., 2015; Brody et al., 2013). The cutoff for family income was chosen based on those above versus below the median U.S. household income of \$51,371 identified by the 2012 U.S. Census data. Due to the range of ordinal answer choices included on our family income measurement, participants were given the ranges of \$25,000-39,999 or \$40,000-59,999. In order to select a more stringent test, we set the at-risk cutoff for income to  $< \$40,000$ .

Our CR measurement included: single parent (1) versus partnered parent (0); high school dropout (1) versus high school graduate or equivalency exam (0); minority (1) versus non-minority (0); and family income  $< \$40,000$  (1) versus family income  $\geq \$40,000$  (0). In regression

analyses, we entered predictors in three steps for the CR variable and four for the individual sociodemographic variables. The CR variable represents a sum of a participant's exposure to risk, ranging from 0 to 4.

*Observed parenting behaviors.* The Iowa Family Interaction Rating Scales (IFIRS; Melby et al., 1998), a global coding system, was used to code two 15-minute interactions between parent and child. Parent and child dyads were first instructed to discuss a pleasant family activity that they completed together using a list of prompted questions that were written to elicit positive affect (e.g., What are some other fun activities that we would like to do together?). After completing the first conversation, parent and child dyads were then asked to discuss a recent stressful family event using a separate list of prompted questions that were written to elicit negative affect (e.g., When mom/dad is sad, down, irritable or grouchy what usually happens?). The IFIRS system is designed to measure behavioral and emotional characteristics of the parent and child individually as well as at a dyadic level. Each behavioral code is scored on a 9-point scale, ranging from 1 (*not at all characteristic*) to 9 (*mainly characteristic*). Coders are instructed to consider both the frequency and intensity of the behavior, as well as the contextual and affective nature of the behavior when coding the interactions. Each video is coded separately by two, independent coders who then meet to establish consensus on any discrepant codes (i.e., codes rated greater than 1 points apart). The mean agreement for codes assessing parents' behavior was 73%.

Independent raters of parent-child interactions can provide relatively objective data about parenting (McKee, Jones, Forehand, & Cueller, 2013). Thus, observations like the macrolevel system used in this study are ideal for assessing patterns of behavior that comprise the ongoing, dynamic process of an interaction (Melby & Conger, 2001). The IFIRS coding system has been

confirmed with interrater reliability and some forms of validity (Alderfer et al., 2008; Melby & Conger, 2001).

Although the IFIRS coding system uses a wide range of emotional and behavioral codes, the current study focused on seven specific codes that were selected to assess two subtypes of negative parenting—withdrawn and intrusive parenting (see Table 1). Following protocols used previously with the IFIRS codes (e.g., Compas et al., 2010; Gruhn et al., 2016; Lim, Wood, & Miller, 2008), scores were aggregated across the two interaction tasks and combined to create a composite code for each parenting category. The composite codes selected were based on theory-driven and empirically supported distributions in parenting due to depression, and were used previously to test specificity among parents' depressive symptoms, parenting, and child internalizing and externalizing symptoms (Gruhn et al., 2016). Interrater reliability was calculated for each IFIRS code using the intraclass correlation coefficient (ICC); ICCs ranged from .52 to .94. The intrusive parenting composite included guilty coercion (mean ICC = .76), hostility (mean ICC = .78), and intrusiveness (mean ICC = .72)  $\alpha = .72$ . The withdrawn parenting composite include child-monitoring (mean ICC = .48; reverse coded), quality time (mean ICC = .94; reverse coded), listener responsiveness (mean ICC = .78; reverse coded), and neglect-distancing (mean ICC = .52)  $\alpha = .76$ .

## **Procedure**

Participants were recruited to participate in a larger study testing the efficacy of a family-based cognitive-behavioral intervention aimed to prevent depression and other mental health problems in children of parents with a history of MDD. All data used in the current study were collected during the baseline assessment and prior to randomization into the intervention trial. The institutional review boards (IRB) at both sites approved the study protocol. Families were

recruited through a variety of sources in and around a southern metropolitan area and a small northeastern city, including mental health clinics and local media outlets. Families were eligible if the parent met criteria for MDD either currently or during the lifetime of her or his child (or children). The following parental diagnoses or characteristics were excluded from the sample: (a) Bipolar I disorder, schizophrenia, or schizoaffective disorder; (b) current depression accompanied by significant impairment (quantified as Global Assessment of Function, GAF,  $\leq$  50) and (c) acute active suicidal ideation, or drug or alcohol use disorders accompanied by significant impairment (GAF  $\leq$  50). Eligible families also had children who (a) had no history of Bipolar I disorder, schizophrenia, autism spectrum disorders, or mental retardation; and (b) did not currently meet for conduct disorder or alcohol/substance abuse or dependence.

After completing an initial phone interview, families who met the eligibility criteria were invited into the laboratory to participate in a baseline assessment, including the 15-min parent–child videotaped interaction tasks described above. All participants were compensated for their participation.

### **Data Analyses**

All analyses were conducted using SPSS version 25. Descriptive analyses examined means and standard deviations for observed parenting behaviors, parents' depressive symptoms, and sociodemographic indicators were calculated. Potential differences in observed parenting behavior were examined for child gender and age.

Bivariate correlations were conducted to test the hypotheses that variables measuring sociodemographic disadvantage (single-parent status, income level, education level, and minority status) and psychological distress would be associated with greater levels of observed negative parenting. Pearson correlations were used for continuous variables, Spearman correlations were

used for ordinal and dichotomous variables, and independent samples *t* tests were used to compare groups on dichotomous variables. Power calculations indicated that there was 80% power and  $p < .05$  to detect correlations of  $r \geq .15$ .

To examine the research questions (i.e., examining the unique associations of parental depressive symptoms and sociodemographic effects on observed parenting behaviors), multiple regression analyses were conducted. In one set, a cumulative risk measure of sociodemographic risk was entered as the independent variable. In the other, sociodemographic variables with continuous measurements were entered. In Step 1, parent BDI-II was entered with both intrusive and withdrawn parenting. This allowed us to determine the extent to which variables of sociodemographic disadvantage uniquely predicted each type of parenting, controlling for parental depressive symptoms. In Step 2, we entered the alternative type of sociodemographic variables. In order to determine the uniqueness of each individual sociodemographic variable, they were separated into continuous variables (maternal education and family income) and dichotomous variables (marital status and parent race) and were entered into Step 2 and Step 3 respectively. This allowed us to analyze the second hypothesis in relation to two cumulative analyses, and whether individual and cumulative measures of sociodemographic disadvantage would predict withdrawn and intrusive parenting. In the final step, we entered the alternative type of parenting type. When Withdrawn parenting was the dependent variable, the final predictor was Intrusive parenting; conversely, when Intrusive parenting was the dependent variable, the final predictor was Withdrawn parenting. This enabled us to reexamine the beta weights for depressive symptoms and sociodemographic variables after controlling for the other outcome, thus testing the specificity hypothesis.

In testing the final hypothesis, I examined whether CR would moderate the association

between parental depression and withdrawn and intrusive parenting. To test this interaction, CR and parental depression were centered by subtracting the sample mean from each individual score and both the centered variables and their product terms were included in multiple regression analyses.

## CHAPTER III

### RESULTS

#### **Descriptive Statistics**

Tables 2 and 3 provide descriptive statistics for the sample. Parents were on average 41.8 years old ( $SD = 7.6$ ) and 89.9% were female. The children of these parents were on average 11.4 years old ( $SD = 2.0$ ) and were 49.7% female. Parents mean score on the BDI-II ( $M = 19.7$ ,  $SD = 12.3$ ) was in the mild range of depressive symptom levels (14-19), with 44.0% of caregivers reporting symptoms in the moderate to severe range (scores  $\geq 20$ ; Beck et al., 1996). On the sociodemographic CR variable, 41.5% of parents had zero risk factors; 22.6% had one risk factor, 21.4% had two risk factors, 11.9% had three risk factors, and 2.5% had four risk factors.

#### **Bivariate Analyses**

Bivariate correlations for parents' current depressive symptoms, parenting behaviors, and the ordinal sociodemographic variables (e.g., education, income, and CR) are presented in Table 4. Consistent with findings from earlier research, parents' current depressive symptoms were significantly related to increased withdrawn parenting ( $r = .26$ ,  $p < .01$ ) and intrusive parenting ( $r = .18$ ,  $p = .02$ ). Parental depressive symptoms were significantly correlated with lower educational attainment ( $r = -.25$ ,  $p < .01$ ), lower family income ( $r = -.26$ ,  $p < .01$ ), and higher CR ( $r = .23$ ,  $p < .01$ ). Both the withdrawn and intrusive parenting variables were significantly negatively correlated with educational attainment ( $r = -.36$  and  $-.29$ ,  $p < .01$ , respectively) and family income ( $r = -.28$  and  $-.25$ ,  $p < .01$ , respectively) and positively correlated with the CR variable ( $r = .33$  and  $.25$ ,  $p < .01$ , respectively).

Additional bivariate analyses examining associations of dichotomous demographic variables to parents' depressive symptoms, and observed parenting behaviors are presented in

Table 5. Single mothers reported significantly greater observed withdrawn parenting  $t(157) = 2.00, p = .05$  and displayed greater intrusive parenting than partnered parents,  $t(157) = 2.31, p = .02$ ; however, single versus partnered parents did not differ on their depressive symptoms  $t(157) = 1.60, p = .11$ . Parents' race was significantly associated with self-reported levels of depressive symptoms  $t(157) = 2.15, p = .03$ , with minority caregivers reporting higher levels of depressive symptoms than white caregivers. Minority parents also displayed significantly greater levels of both withdrawn  $t(157) = 6.59, p < .01$  and intrusive parenting  $t(157) = 4.12, p < .01$  than white parents. Maternal education was not significantly related to either parental depressive symptoms  $t(157) = -.15, p = .88$ , withdrawn parenting  $t(157) = -.176, p = .11$ , or intrusive parenting  $t(157) = .88, p = .38$ .<sup>1</sup> In contrast, bivariate analyses showed that family income was significantly associated with depressive symptoms  $t(157) = 3.05, p < .01$ , withdrawn parenting  $t(157) = 2.96, p < .01$ , and intrusive parenting  $t(157) = 2.33, p = .02$ , with family income  $< \$40,000$ ; more specifically, family income was associated with higher depressive symptoms, and more withdrawn and intrusive parenting.

### **Continuous vs. Cumulative Sociodemographic Risk Models**

*Cumulative sociodemographic risk model.* Linear regression analyses were conducted to examine the association between parental depressive symptoms, sociodemographic disadvantage and each type of parenting behavior. Table 6 shows the results of these analyses when a CR variable was entered into the regression model. Initially, parental depressive symptoms significantly predicted intrusive ( $b = .02, \beta = .18, p = .02$ ) and withdrawn parenting ( $b = .02, \beta =$

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<sup>1</sup> Due to the small number of participants who endorsed an education level below high school ( $n = 10$ ), we ran supplementary analyses using high school graduate or equivalency exam as the cut-off ( $n = 24$ ). In these analyses, maternal education was significantly associated with parental depressive symptoms  $t(157) = 2.03, p = .05$ , intrusive parenting  $t(157) = 2.77, p < .01$ , and withdrawn parenting  $t(157) = 3.72, p < .01$ .

.26,  $p < .01$ ). When the cumulative risk variable was added to the model in Step 2, depressive symptoms was a unique predictor of withdrawn parenting ( $b = .02$ ,  $\beta = .19$ ,  $p = .01$ ), but no longer predicted intrusive parenting behaviors ( $b = .01$ ,  $\beta = .13$ ,  $p = .101$ ). After controlling for parents' depressive symptoms, the cumulative risk variable was a significant predictor of both withdrawn ( $b = .29$ ,  $\beta = .33$ ,  $p < .01$ ) and intrusive parenting ( $b = .22$ ,  $\beta = .25$ ,  $p < .01$ ).

*Continuous sociodemographic risk model.* Table 6 also shows the results when each individual sociodemographic variable served as a measure of sociodemographic disadvantage. Identical to step one of the first regression model, parental depressive symptoms predicted both types of parenting. When parents' education and family income were included (Step 2), parental depressive symptoms remained a predictor for withdrawn parenting ( $b = .01$ ,  $\beta = .15$ ,  $p = .04$ ), however depressive symptoms were no longer a predictor of intrusive parenting ( $b = .01$ ,  $\beta = .10$ ,  $p = .224$ ). When controlling for parents' marital status and race, parents' education ( $b = -.15$ ,  $\beta = -.17$ ,  $p = .02$ ), family income ( $b = -.11$ ,  $\beta = -.23$ ,  $p = .01$ ), and parents' minority status ( $b = .90$ ,  $\beta = .36$ ,  $p < .01$ ) were unique predictors of withdrawn parenting and parental depressive symptoms approached significance ( $b = -.10$ ,  $\beta = -.12$ ,  $p = .08$ ); however, only parents' minority status ( $b = .54$ ,  $\beta = .21$ ,  $p = .01$ ) remained as a unique predictor of intrusive parenting behaviors.

### **Specificity in Parenting**

To test the unique specificity for the relation of parental depressive symptoms, sociodemographic disadvantage and intrusive and withdrawn parenting, we controlled for the other type of parenting behavior in the final step of the regression (see Table 6). When controlling for withdrawn parenting, no sociodemographic variable, cumulative or continuous, was a significant predictor of intrusive parenting. However, when controlling for intrusive parenting, family income ( $b = -.09$ ,  $\beta = -.18$ ,  $p = .03$ ) and parent race ( $b = .71$ ,  $\beta = .28$ ,  $p < .01$ )

both remained unique predictors of withdrawn parenting. Thus the association between family income and parent race was significantly stronger for withdrawn parenting than intrusive parenting.

### **Interaction of Cumulative Risk and Depressive Symptoms**

With regard to the final hypothesis, analyses examined whether CR would moderate the association between parental depression and intrusive and withdrawn parenting. Following the same regression method described above, a regression model was run for each parenting behavior outcome that used the centered CR and parental depressive symptoms and included the interaction term in Step 2 (see Table 7). In each of these models, the CR  $\times$  parental depressive symptoms interaction term was not a significant predictor of withdrawn ( $b = .01, \beta = .17, p = .17$ ) or intrusive ( $b = .01, \beta = .12, p = .35$ ) parenting. However, the main effect of both parental depressive symptoms ( $b = .03, \beta = .33, p < .01$ ) and cumulative risk ( $b = .27, \beta = .32, p < .01$ ) remained significant predictors of withdrawn parenting behaviors. Similarly, cumulative risk was a significant predictor of intrusive parenting ( $b = .21, \beta = .24, p < .01$ ), while parental depressive symptoms approached significance ( $b = .02, \beta = .23, p = .09$ ).

## CHAPTER IV

### DISCUSSION

The goal of this study was to elucidate the association between parental depressive symptoms and sociodemographic factors with parenting behaviors in parents with a history of MDD. Given the high prevalence of MDD in parents and the increased risk for psychopathology among children of depressed parents, the need for preventive interventions is also high. Previous research has shown that intrusive and withdrawn parenting patterns are risk factors for the development of internalizing and externalizing problems in offspring of depressed parents (Gruhn et al., 2016; Lovejoy et al., 2000). The findings from the current study are important for the development of preventive interventions targeting parenting behaviors. Parents display an increase in levels of negative parenting behaviors when depressed (Forehand et al., 2012), and sociodemographic factors may be helpful in identifying a subset of these parents who may be most at risk. Although it is well documented that sociodemographic and psychological factors are associated with impaired parenting, no study has rigorously examined the potential independent or cumulative association of parental depression and specific sociodemographic variables with parenting behaviors among parents with a history of MDD. The findings from the present study provide evidence that both depressive symptoms and factors representing sociodemographic disadvantage (i.e., single parenthood, lower family income, lower parental education, non-white race) are independently and collectively associated with withdrawn and intrusive parenting behaviors in this population.

#### **Predictors of Intrusive and Withdrawn Parenting Behaviors**

There was partial support for the hypotheses that parental depressive symptoms and sociodemographic disadvantage would each place parents with a history of depression at greater

risk for withdrawn and intrusive parenting. Parental depressive symptoms and CR scores were significantly associated with withdrawn and intrusive parenting (see Table 4). Linear regression analyses tested the relative and cumulative contribution of parental depressive symptoms and a CR variable to withdrawn and intrusive parenting as well as the hypothesis that the associations of these variables would remain significant after controlling for the other. This hypothesis was partially supported. Parental depressive symptoms were associated with significantly higher levels of both withdrawn and intrusive parenting, accounting for 3% and 7% of the variance in parenting behaviors, respectively. When controlling for CR, parental depressive symptoms were significantly associated with withdrawn parenting, demonstrating a unique relationship between parental depression and withdrawn parenting. However, parental depressive symptoms were not significantly associated with intrusive parenting when controlling for CR. It is possible that because intrusive parenting is implicated in various mental health disorders, it is less specific to parental depression than withdrawn parenting (Liber et al., 2008). These findings are inconsistent with well-documented literature on the association between parental depressive symptoms and parenting behaviors (e.g., Field, 2010; Lovejoy et al., 2000). This discrepancy may be due in part to differences in measurements; the present study focused on specific parenting styles (e.g., withdrawn and intrusive) whereas most previous studies documenting the effects of depressed parents focus on more general parenting behaviors (e.g., positive and negative). The findings suggest that the stress that comes with depressive symptoms may be more related to withdrawn than intrusive parenting, or that the association of current depressive symptoms and intrusiveness may be best explained through the effects of CR.

The relative contribution of each sociodemographic variable in reference to our hypotheses through individual variables of sociodemographic disadvantage was also examined.

At the bivariate level, parental depression and each sociodemographic indicator was significantly associated with withdrawn and intrusive parenting (see Tables 4 and 5). Similar to analyses with CR scores, regression models tested the relative and cumulative contribution of parental depressive symptoms and each sociodemographic variable to withdrawn and intrusive parenting as well as the hypothesis that significant associations of these variables would remain significant after controlling for the other. While maternal education, family income, and parent race were significant predictors of withdrawn parenting, parental depressive symptoms only approached significance. In contrast, only parent race was significantly associated with intrusive parenting when controlling for parental depressive symptoms and other sociodemographic variables. This suggests that withdrawn parenting is associated with a wide range of sociodemographic risk variables whereas intrusive parenting is associated only with race. Broadly, these findings support research that depressed parents who also experience sociodemographic disadvantage may exhibit more withdrawn parenting behaviors. These analyses support prior studies that demonstrate both parental depressive symptoms and sociodemographic disadvantage predict disruptions in parenting (e.g., Bluestone & Tamis-Lemonda, 1999; Lovejoy et al., 2000)

In testing for unique associations, analyses supported that while some risk factors for both withdrawn and intrusive parenting behaviors are shared, others show specificity to withdrawn parenting, but not intrusive parenting. Neither parental depressive symptoms nor sociodemographic variables remained significantly associated with intrusive parenting when accounting for withdrawn parenting. However, parental race and family income were uniquely associated with withdrawn parenting after controlling for intrusive parenting. These findings suggest that parental race and family income may play an important and specific role as a risk for withdrawn parenting.

Taken together, the results also suggest that along with symptoms of parental depression, the underlying influence of sociodemographic disadvantage may pose a significant risk for withdrawn and intrusive parenting among depressed mothers. Partial support was found for both independent and collective influences of sociodemographic factors, with parental race presenting the most consistent independent effects across parenting behaviors. These results elucidate findings from previous studies.

While some research has reported on sociodemographic factors and parenting behaviors in this population, few studies have attempted to investigate the best method of measuring sociodemographic variables and how these factors may account for parenting behaviors. The results of the present study suggest that individual, continuous indicators of sociodemographic variables, rather than a single CR variable, may be a more sensitive measure to account for parenting behaviors in this population. This is in line with research reporting that broadly suggests that splitting a variable into categories results in a loss of information (Altman & Royston, 2006; Rosenthal & DiMatteo, 2001; Streiner, 2002). The cumulative measure of these variables suggested that parents experiencing sociodemographic disadvantage in multiple spheres are at risk for parenting in withdrawn and intrusive styles. However, upon further analysis, specific variables of sociodemographic disadvantage independently and cumulatively predicted certain forms of parenting, with some effects no longer significant after accounting for specific variables of sociodemographic disadvantage. Thus, among parents with depressive symptoms, within the broader stressors created by sociodemographic disadvantage, minority status, introduced on top of other measures of sociodemographic disadvantage, may be a more salient predictor of intrusive parenting.

In previous work examining sociodemographic factors as mechanisms of risk for

parenting responses, two theoretical frameworks have been hypothesized to mediate this relationship – the family stress model and the social disorganization theory (Conger & Elder, 1994; Elder 1999; Shaw & McKay, 1969). The family stress model suggests that the stress associated with economic hardship strains family relationships and disrupts parenting, whereas the social disorganization theory posits that neighborhoods with a high proportion of impoverished residents and/or high ethnic heterogeneity are disadvantaged when compared to other neighborhoods (Shaw & McKay, 1969). Thus, multiple processes may account for the greater influence of sociodemographic disadvantage, specifically minority status, in predicting intrusive and withdrawn parenting styles. One possible explanation for the findings in the current study is that minorities encounter a diversity of experiences, including sociodemographic status, education, and historical events (e.g., McAdoo, 2002), and certain parenting styles may be influenced by these contextual variables. For example, Kotchick et al. (2005) found that neighborhood stress was related to greater psychological distress, which in turn was associated with less positive parenting practices 15 months later. Similarly, prior studies have shown minority races to be particularly vulnerable to additional race-related stressors (Kessler & Neighbors, 1986; McLoyd, 1990; Pinderhughes, Nix, Foster, & Jones, 2009), and to encounter additional barriers to caregiving which make parenting even more difficult (McAdoo, 2002). In a previous study examining how neighborhood disorder and subsequent feelings of fear may contribute to the links between low income levels and parenting behaviors among a multiethnic sample, researchers found that a lower income-to-needs ratio was related to more family conflict and greater neighborhood disorder, predicting increased levels of harsh parenting (Barajas-Gonzalez & Brooks-Gunn, 2014). Thus, it is possible that an indirect effect (e.g., neighborhood stress, greater fear for safety) may be accounting for the relationship between race and intrusive

and withdrawn parenting, and the findings from the current study should be interpreted with caution.

Notably, analyses examining the interaction between parental depressive symptoms and sociodemographic disadvantage were not significant. This finding is inconsistent with documented literature on the association between CR, depressive symptoms, and parenting (Lovejoy et al., 2000). This discrepancy may be due in part to an undersampling of families living in poverty in the current study. Half of the present study's sample was recruited from Vermont, where racial and ethnic diversity are limited. In general, our sample was White, living above the poverty-line, and well educated. Thus, our sample was skewed to the higher end, having experienced little to no risk (e.g., 41% of parents reported experiencing zero risk factors). Given that the present study did not have the levels of disadvantage that might have been shown in an interaction, this highlights a potential target for future research.

### **Limitations**

The current study had several limitations that provide direction for future research. The analyses of parental depressive symptoms and parenting behaviors are cross-sectional and directionality could not be established; future studies should examine these relationships prospectively over time, particularly focusing on the potential long-term impact of parental depression on parenting behaviors following the accumulated effects of sociodemographic variables. Longitudinal investigations could allow for tests of mediation, not available in the present study. Future longitudinal studies should be conducted to better understand the relations between sociodemographic disadvantage, depressive symptoms, and parenting behaviors.

Secondly, parents with a current diagnosis of depression accompanied by severe impairment or presenting with active suicidal ideation were excluded from the study.

Consequently, the sample does not entirely represent depressed parents, and the incidence of parental depressive symptoms may be underestimated. However, as evidenced by the elevated scores on the BDI, this sample represents parents presenting with depressive symptoms.

Finally, the sociodemographic measures used in this sample included arbitrary cutoffs, and restricted the sensitivity of some variables (e.g., years completed school). Including a full spectrum of answer choices, or open-ended answer choices, may have covered a broader range of sociodemographic endorsements.

### **Strengths**

Despite the aforementioned shortcomings, the present research had several key strengths. First, the sample was relatively large and allowed for good statistical power to test the hypotheses. Second, observational measures of parenting behaviors were used along with parent-reports and sociodemographic variables making the results of the present study unaffected by shared method variance (e.g., Rowe & Kandel, 1997). Finally, considering past findings on CR, this research is unique in its focus on the comparison of the contributions of CR versus individual sociodemographic variables to parenting behaviors.

### **Future Directions**

Several steps can be taken to extend the findings from the present study in future research. With evidence supporting both depressive symptoms and sociodemographic disadvantage as predictors of parenting behaviors, future work should examine these constructs in a sample including both parents with and without a history of depression. Future intervention and preventative research should consider the additional stress associated with sociodemographic disadvantage. Targeting this stress by teaching coping skills to parents, may be one way to prevent the negative repercussions of impaired parenting as well as target the psychopathological

symptoms implicated in sociodemographic disadvantage. Specifically, by teaching primary control (e.g., problem solving) and secondary control coping (e.g., cognitive reappraisal) skills to parents, it could help them manage both the uncontrollable and controllable sources of stress associated with sociodemographic disadvantage.

In summary, these findings underscore a need to consider the broader sociodemographic context of parents with a history of depression. Sociodemographically disadvantaged families face a constellation of stressors (Evans, 2004) that, in conjunction with the additional stressors accrued by depressive symptoms, may intensify the impact on parenting behaviors. The present study also has implications for intervention. In addition to highlighting the need to improve supportive services (e.g., programs aimed at reducing financial and logistical burdens for families), the current findings suggest that sociodemographic factors should be considered when implementing screening procedures for preventive and therapeutic interventions.

Research has confirmed that parenting behaviors are significantly related to child problems, and this study provided new data suggesting that parents in greatest need of interventions include those from low-SES backgrounds. Furthermore, this study highlights the need for a more general framework for addressing ethnicity and culture in the development of preventive interventions. Culture permeates all families, but it is especially salient for minority families. Current evidence-based interventions are often designed as a “one treatment fits all,” typically targeting those of European descent and culture, and fall short in understanding the processes of ethnic minorities. In this new age of research, it is essential that researchers incorporate cultural diversity into their research and develop programs that serve the growing multiethnic population.

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## APPENDIX

Table 1

*Composite Iowa Family Interaction Ratings Scales (IFIRS) Codes for Withdrawn and Intrusive Parenting (Gruhn et al., 2016)*

Parenting behaviors associated with depressive symptoms and sociodemographic disadvantage	IFIRS Code	IFIRS code definition
<b>Withdrawn Parenting</b>		
Parent-focused attention; distancing from child interaction	Neglect/Distancing (ND)	The degree to which the parent is uncaring, apathetic, uninvolved, ignoring, aloof, unresponsive, self-focused, and/or adult-oriented; the parent displays behavior that minimized the amount of time, contact or effort he/she has to expend on the child.
High disengagement and low responsiveness; tendency to answer with low effort responses	Listener Responsiveness (LR; Reverse coded)	The degree to which the focal attends to, shows interest in, acknowledges, and validates the verbalizations of the other person (the speaker) through the use of nonverbal backchannels and verbal assents. A responsive listener is oriented to the speaker and makes the speaker feel like he/she is being listened to rather than feeling like he/she is talking to a blank wall.
Disinterest and lack of knowledge of child's activities and daily life	Child Monitoring (CM; reverse coded)	Assesses the parent's knowledge and information as well as the extent to which the parent pursues information concerning the child's daily life and daily activities. It measures the degree to which the parent knows what the child is doing, where the child is, and with whom.
Low social involvement; limited parent-child involvement	Quality Time (QT; reverse coded)	Assesses the extent or quality of the parent's involvement in the child's life outside of the immediate setting; represents time well-spent versus superficial involvement
<b>Intrusive parenting</b>		
Tendency to react in anger to child's difficult behavior; negative emotionality	Hostility (HS)	Measures the degree to which the focal displays hostile, angry, critical, disapproving, and/or rejecting behavior toward the other interactor's behavior (actions), appearance, or state.
Use of harsh control associated with thought of parental incompetence	Intrusive (NT)	Assesses intrusive and overcontrolling behaviors (e.g., overmonitoring, interfering with child's autonomy) that are parent centered rather than child centered. Does not reflect positivity or warmth. Task completion or the parent's own needs appear to be more important than promoting the child's autonomy.
High manipulative parenting (e.g., conditional loving, shaming, guilt induction)	Guilty Coercive (GC)	The degree to which the focal achieves goals or attempts to control or change the behavior or opinions of the other by means of contingent complaints, crying, whining, manipulations, or revealing needs or wants in a whiny or whiny-blaming manner. These expressions convey the sense that the focal's life is made worse by something the other interactor does.

Table 2

*Ages of Parents with a History of Depression and their Children*

Characteristic	Overall Sample N = 159		
	M	SD	Range
Age of parent	41.8	7.6	24-69
Age of child	11.4	2.0	9-15

Table 3

*Demographics of Parents with a History of Depression*

	N	%
Gender of child		
Female	80	50.3
Male	79	49.7
Gender of parent		
Female	143	89.9
Male	16	10.1
Parent's education		
Less than high school	10	6.3
High school	14	8.8
Some college	47	29.6
College graduate	52	32.7
Graduate education	36	22.6
Parent marital status		
Married or living with someone	95	59.7
Single, divorced, separated, or widowed	64	40.3
Annual family income		
<\$5,000	11	6.9
\$5,000-\$9,999	7	4.4
\$10,000-\$14,999	3	1.9
\$15,000-\$24,999	18	11.3
\$25,000-\$39,999	33	20.8
\$40,000-\$59,999	27	17.0
\$60,000-\$89,000	32	20.1
\$90,000-\$179,999	23	14.5
≥\$180,000	5	3.1
Parent race		
White	128	80.5
non-White	31	19.5

Table 4

*Bivariate Correlations Among Parental Symptoms of Depression, Observed Parenting, and Sociodemographic Variables*

	1	2	3	4	5	6
Parent BDI score	-					
Withdrawn parenting	.26**	-				
Intrusive parenting	.18*	.54**	-			
Parents education	-.25**	-.36**	-.29**	-		
Family income	-.26**	-.28**	-.25**	.36**	-	
CR	.23**	.30**	.25**	-.37**	-.81**	-

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

Table 5

*Means and Standard Deviations for Measures of Parental Symptoms, Sociodemographic Variables, and Parenting Behaviors*

	BDI M (SD)	Withdrawn Parenting M (SD)	Intrusive Parenting M (SD)
<b>Marital Status</b>			
Single parent	21.6 (11.9)	.163 (1.1)	.240 (1.1)
Partnered parent	18.5 (12.5)	-.155 (.91)	-.134 (.92)
t (df)	1.60 (157)	2.00 (157)*	2.31* (157)
<b>Race</b>			
Non-White	24.0 (11.9)	.91 (1.0)	.66 (1.1)
White	18.7 (12.3)	-.25 (.85)	-.14 (.93)
t (df)	2.15 (157)*	6.59 (157)**	4.12 (157)**
<b>Maternal Education</b>			
High School Dropout	19.2 (10.8)	.751 (1.5)	.290 (.66)
High School Graduate or above	19.8 (12.5)	-.079 (.94)	-.002 (1.0)
t (df)	-.146 (157)	1.76 (157)	.882 (157)
<b>Family Income</b>			
< \$40,000	22.9 (12.5)	.230 (1.1)	.219 (1.1)
≥ \$40,000	17.1 (11.6)	-.239 (.85)	-.151 (.93)
t (df)	3.05 (157)*	2.96 (131.1)*	2.33 (157)*

\* $p < .05$  \*\* $p < .01$

Table 6

*Summary of Linear Multiple Regression Analyses for Variables Predicting Parenting Behaviors*

Predictor	Intrusive Parenting Behavior			Withdrawn Parenting Behaviors		
	<i>b</i>	$\beta$	$\Delta R^2$	<i>b</i>	$\beta$	$\Delta R^2$
Step 1			.03			.06
Parent BDI	.02*	.18		.02**	.26	
Step 2a			.08			.16
Parent BDI	.01	.13		.02*	.19	
Cumulative Risk	.22**	.25		.29**	.33	
Step 2b			.11			.20
Parent BDI	.01	.10		.01*	.15	
Parent education	-.17*	-.18		-.22**	-.24	
Family income	-.10*	-.20		-.11**	-.23	
Step 3			.14			.31
Parent BDI	.01	.08		.01 <sup>†</sup>	.12	
Parent education	-.13 <sup>†</sup>	-.14		-.15*	-.17	
Family income	-.08	-.16		-.11**	-.23	
Parent marital status	-.01	-.00		-.25	-.12	
Parent race	.54**	.21		.90**	.36	
Step 4a			.29			.35
Parent BDI	.00	.03		.01*	.13	
Cumulative Risk	.08	.09		.19**	.22	
Alternative parenting	.51**	.50		.45**	.46	
Step 4b			.28			.42
Parent BDI	.00	.02		.01	.09	
Parent education	-.06	-.06		-.11 <sup>†</sup>	-.12	
Family income	-.02	-.05		-.09*	-.18	
Parent marital status	.11	.05		-.25	-.12	
Parent race	.12	.05		.71**	.28	
Alternative parenting	.47**	.46		.37**	.37	

\* $p < .05$  \*\* $p < .01$

Table 7

*Summary of Linear Multiple Regression Analyses for Main Effects and Interaction Effects on Predicting Parenting Behaviors*

Predictor	Intrusive Parenting Behavior			Withdrawn Parenting Behaviors		
	<i>b</i>	$\beta$	$\Delta R^2$	<i>b</i>	$\beta$	$\Delta R^2$
Step 1			.08			.16
Parent BDI	.01	.13		.02**	.19	
Cumulative Risk	.22**	.25		.29**	.33	
Step 2			.08			.17
Parent BDI	.02 <sup>†</sup>	.23		.03**	.33	
Cumulative Risk	.21**	.24		.27**	.32	
BDIxCumulative Risk	.01	.12		.01	.17	

\* $p < .05$  \*\* $p < .01$