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The Relation of Parental Guilt Induction to Child Internalizing Problems When a Caregiver Has a History of Depression

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Abstract

The purpose of this study was to examine the relation between parental guilt induction and child internalizing problems in families where a caregiver had experienced depression. A total of 107 families, including 146 children (age 9–15), participated. Child-reported parental guilt induction, as well as three more traditionally studied parenting behaviors (warmth/involvement, monitoring, and discipline), were assessed, as was parent-report of child internalizing problem behavior. Linear Mixed Models Analysis indicated parental guilt induction was positively related to child internalizing problems in the context of the remaining three parenting behaviors. Implications of the findings for prevention and intervention parenting programs are considered.

Keywords

Guilt induction; Parenting; Depression; Internalizing problems

Introduction

Currently in the United States, Major Depressive Disorder (MDD) is estimated to affect one out of every five people during their lifetime (see Wang et al. 2003, for review). The economic cost for this disorder is high, but the cost in human suffering cannot be estimated. Often marked by functional impairment, a depressive disorder involves a combination of debilitating symptoms that interfere with daily functioning and enjoyment in pleasurable activities. Such episodes commonly recur throughout one's lifetime (Boland and Keller 2002), and, as pointed out by Hammen (1991), the high rates of recurrence and relapse highlight not only the chronicity of the disorder but also the functional implications at both the interpersonal and familial levels.

It is well documented that maternal depression has a detrimental association not only with the functioning of the individual suffering from depression but with the psychosocial development of offspring, including internalizing problems (Goodman and Gotlib 1999; Hammen and Brennan 2003). For example, when compared to children of never-depressed mothers, children exposed to maternal depression prior to the age of 10 have been found to be twice as likely to develop MDD or dysthymic disorder (Hammen and Brennan 2003) and to be at an increased

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risk for the development of anxiety disorders (Gelfand and Teti 1990). Adolescent offspring of mothers with a history of depression have higher recurrence rates of MDD, as well as an increased severity and chronicity of MDD, as compared to the normative population (Rohde et al. 2005).

Relations between parental depression and child internalizing problems are not limited to the mother-child relationship. For example, Kane and Garber (2004) recently conducted a meta-analytic review and found similar rates of child internalizing problems for offspring of fathers with depression as have been found for mothers.

As detailed by Rutter (1990), "because depression is both a prevalent disorder among parents, and one that is associated with significant psychosocial risk for children, it is important to understand the mechanisms through which parental depression contributes to current and future child adjustment problems" (p. 562). One mechanism that has received support is poor parenting and dysfunctional styles of interaction between parent and child (for reviews see Downey and Coyne 1990; Elgar et al. 2004; Goodman and Gotlib 1999). Specifically, the deficits in positive affect and excesses of negative affect characteristic of depression (Lovejoy et al. 2000) can lead to difficulties in a parent's use of warmth/involvement (e.g., praise, attends school meetings, helps with homework), monitoring (limit setting), and effective discipline (e.g., consistently follows through with reasonable consequences). While deficits in these parenting behaviors have been associated with increased levels of externalizing problems in the general parenting literature (see Capaldi et al. 1997; McMahon et al. 2006, for reviews), the literature in this area provides only minimal evidence for a relation between these types of parenting and internalizing problems (for reviews see McKee et al. 2008; McLeod et al. 2007; McLeod et al. 2007).

The conclusions about parenting and child internalizing are not altered substantially when depressed populations of parents are examined. For example, a review of the extant literature yielded five studies that examined parenting and child internalizing outcomes among clinically depressed parents (i.e., Fendrich et al. 1990; Frye and Garber 2005; Hammen et al. 2004; Jaser et al. 2005; McKee et al. in press). Of these five studies, three found an association between negative parenting (e.g., criticism, irritability) and increased rates of internalizing problems (Frye and Garber 2005; Hammen et al. 2004; Jaser et al. 2005) whereas two failed to support such a relationship (Fendrich et al. 1990; McKee et al. in press). In addition, the McKee et al. study, which served as the impetus for the current investigation, examined a positive parenting behavior (warmth) and failed to find evidence for a hypothesized negative relationship between this parenting behavior and child internalizing problems.

The lack of evidence linking parenting and internalizing problems in depressed samples may be due to the fact that the parenting behaviors studied thus far have originated primarily from research on parenting and externalizing problems (McKee et al. 2008). This suggests that that parenting behaviors beyond those traditionally studied may be important predictors of internalizing problems. Therefore, an attempt to identify parenting behaviors that are linked specifically with internalizing problems within the context of parental depression is an important next step in the research process.

Recent research by Donatelli et al. (2007) indicates that guilt induction is a parenting behavior that merits consideration. When used with high frequency and/or intensity, including the parent directing an unwarranted and inappropriate amount of blame and responsibility toward his or her child while frequently emphasizing declarations of disappointment over minor transgressions, a limited literature suggests that this form of parental guilt induction is associated with internalizing problems in children (Donatelli et al. 2007).

This emerging literature is particularly evident within the context of parental depression because depressed parents lack the adaptive parenting skills to effectively manage the behavior of their children (Lovejoy et al. 2000). Depressed parents may not only be more likely to use guilt induction when parenting, but, due to their negatively-biased cognitive and affective state, may also reinforce feelings of guilt they instill in their children through continual reminders of the exhausting burden their child places on them (Downey and Coyne 1990; Zahn-Waxler and Kochanska 1988). Depressed parents have been found to more quickly and frequently use guilt-inducing techniques of admonishment to emphasize declarations of disappointment and to report a belief that their children should be made aware of the sacrifices they make on their behalf (Susman et al. 1985).

For children of depressed parents, the maladaptive influence of parental guilt induction may increase the child's difficulty in distinguishing problems they have caused from those instigated by forces beyond their control. A child will, therefore, often assume the unrelenting burden of responsibility for their parent's depression while being unable to relieve their parent's symptoms (Zahn-Waxler and Kochanska 1988). Due to the insoluble nature of their parent's depression, exposure to this type of parental guilt induction may lead to self-assumed over-responsibility for the mood, actions, and emotional well-being of their depressed parent. As a consequence, chronic, unresolved, and unalleviated exposure to high levels of parental guilt induction, and the assumption of responsibility for the parent, can create difficulty for a child's adaptive, social, and interpersonal growth as well as autonomy from the parent, ultimately contributing to the development of internalizing problems (Zahn-Waxler et al. 1990).

Donatelli et al. (2007) identified two types of parental guilt induction utilized by depressed parents: self-serving elicitation and disparagement. Self-serving elicitation was defined as exaggerations of parental sacrifice for the child while muting the child's attempts at autonomy. Disparagement included parents' attempts at inducing guilt even when the child was not at fault, emphasis of the child's burden on the parent, and rumination over the child's past transgressions. In their study, Donatelli and colleagues measured parental guilt induction through a combination of a child self-report questionnaire and the coding of retrospective child-accounts of this parenting behavior. Similar to earlier work by Susman et al. (1985), they found that guilt induction is reported more often in offspring of depressed than non-depressed parents. In addition, Donatelli et al. found that this parenting behavior, particularly the disparagement sub-type, is related to child report of depressive symptoms.

In the current study, we build on the work of Donatelli et al. (2007) in two ways. First, in order to provide a more stringent test of the relationship between guilt induction and internalizing problems, independent reports of parental guilt induction and child internalizing problems were collected. Second, the unique contribution of parental guilt induction to child internalizing problems behaviors beyond other commonly studied parenting variables was examined. We included a parenting behavior from each of the three categories of parenting noted earlier: warmth/involvement, monitoring, and effective discipline. The primary hypothesis was that parental guilt induction, when considered in the context of other parenting behaviors (i.e., warmth/involvement, monitoring, and discipline), would make a unique contribution to child internalizing problems. Specifically, higher levels of guilt induction would be associated with higher levels of internalizing problems.

Our hypothesis is based on several interrelated literatures. First, the work of Donatelli et al. (2007) suggests not only that guilt induction relates to child internalizing problems but that parents who have a history of depression are likely to use guilt induction as a parenting behavior. Second, guilt induction has been identified as one component of psychological control, which has been found to relate to internalizing (Barber and Harmon 2002) but not externalizing (Barber et al. 1994), problems of children. Third, the literature indicating that

traditionally studied behaviors (e.g., discipline) relate more to externalizing than internalizing problems (see McKee et al. 2008) suggests that guilt induction may be related to internalizing problems even after these other behaviors are taken into account.

As a secondary hypothesis, we examined the two types of guilt induction delineated by Donatelli et al. (2007): self-serving elicitation and disparagement. Based on the findings of Donatelli and colleagues, we proposed that disparagement will be related to internalizing problems.

In this study we focused on parents with a history of clinical depression. Current depressive symptoms were selected as the indicator of parental depression based on two lines of research suggesting they are the most sensitive marker of this construct. First, prior research has demonstrated that current depressive symptoms are a more sensitive predictor of child adjustment than presence versus absence of clinical depression (Hammen et al. 1987). Second, with samples of parents with a history of depression, current depressive symptoms have been shown to be a better predictor of child outcome than other markers of impairment such as number of previous parental depressive episodes or chronicity (i.e., total duration across any separate periods of depressive disorder) (Hammen et al. 1987; Hammen and Brennan 2003).

Children in the current study range in age from 9 to 15 years, 11 months. This age group was chosen because it is during this developmental period that youth are particularly vulnerable to an increase in internalizing problems (DuBois and Silverthorn 2004; Holmbeck et al. 2006).

Method

Participants

We utilized data from the baseline assessment of a cognitive-behavioral family-based intervention program designed to prevent mental health problems among the children of parents with a history of Major Depressive Disorder (MDD). One hundred and seven families from Burlington, Vermont, and Nashville, Tennessee, were included in the current study. In each family, at least one parent had a history of MDD during the lifetime of their child, and each participating child was within the targeted age range of 9 years to 15 years, 11 months. All 9–15 year old children from each family were eligible to participate, resulting in 146 parent-child dyads. Because of the goals of the intervention project, exclusionary criteria included lifetime history of bipolar-I disorder and schizophrenia in the target parent, and current depression (including dysthymia), bi-polar I disorder, schizophrenia, current substance abuse, current or lifetime conduct disorder, an autism spectrum disorder, and mental retardation in children.

A sample of 122 families with 167 children initially was assessed and determined to meet eligible criteria for the study. Because of missing data on independent or dependent variables of interest, 15 of the 122 families, (including 21 children,) were excluded, resulting in the final sample of 107 families with 146 children. Demographic information for the sample is shown in Table 1. The sample consisted of 91 mothers with a mean age of 41.24 (SD = 7.17) years, 16 fathers with a mean age of 47.88 (SD = 8.16) years, and 146 children (78 males) with a mean age of 11.58 years (SD = 1.98) for boys and 11.39 (SD = 1.91) for girls (see Table 1). Both mothers and fathers identified as the target parent were included in the sample as research indicates outcomes for children are very similar (Kane and Garber 2004).

Interviewers—Interviewers, who administered the Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition (SCID-I/P; First et al. 2001) and the Kiddie-Schedule for Affective Disorders and Schizophrenia for School Aged Children, Present and Lifetime Version (K-SADS-PL; Kaufman et al. 1997), underwent approximately 25 hours of training total for both instruments. The training included the following steps: (a)

a detailed overview of both instruments followed by practice with a previously trained and reliable interviewer; (b) listening to and scoring of a previously administered interview; (c) resolution of any discrepancies from the original scoring of that interview by a master trainer; (d) a reliability check out interview with a community parent and/or child; (e) resolution of discrepancies through discussion between the interviewer and master trainer; and (f) mandatory interviewer refresher meetings on a bimonthly basis to prevent interviewer drift.

Reliability checks, conducted in approximately 20% of the interviews, resulted in adequate agreement. For example, for each of the SCID-I/P diagnostic categories of interest, the percent agreement was .90 and higher (100% in 55% of the categories). The kappa coefficient was above .60 (reflecting substantial agreement, Landis and Koch 1977) for all primary categories of interest.

Measures

Eligibility Criteria—The Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Patient Edition (SCID-I/P; First et al. 2002) was used to screen parents for a history of major depressive disorder (during the target child's lifetime) and the absence of a lifetime history of bi-polar-I disorder and schizophrenia. Adequate reliability and validity for the SCID-I/P has been established for each of the DSM-IV diagnoses of interest (e.g., Skre et al. 1991; Zanarini et al. 2000).

The Kiddie-Schedule for Affective Disorders and Schizophrenia, Present and Lifetime Version (K-SADS-PL; Kaufman et al. 1997) was used to determine eligibility of children. Child and parent report of the child's symptom count for current depression, bi-polar I disorder, schizophrenia, current substance abuse, and current and lifetime conduct disorder were collected. The higher of the two scores was used to measure symptoms in each diagnostic category and to exclude a participant when a diagnostic criterion was met. Adequate reliability and convergent and discriminant validity have been established for this assessment tool (Kaufman et al. 1997).

Demographic Information—Demographic variables were reported by the child (child age and gender) and by the parent (parental age, gender, ethnicity, marital status, level of education, and household income). Parental level of education was assessed via a self-report form on which: 0 = No school; 1 = Less than seven years of school; 2 = Junior high school (7th, 8th, 9th); 3 = Some high school (10th, 11th); 4 = High school graduate (including equivalency exam); 5 = Some college or technical school (at least one year); 6 = College graduate; and 7 = Graduate professional training (Masters or above). Household gross yearly income was assessed via self-report form on which: 1 = Under $5,000; 2 = $5,000–9,999; 3 = $10,000–14,999; 4 = $15,000–24,999; 5 = $25,000–39,999; 6 = $40,000–59,999; 7 = $60,000–89,999; 8 = $90,000–179,999; 9 = $180,000 and over.

Parent Depressive Symptoms—The Beck Depression Inventory, 2nd edition (BDI-II; Beck et al. 1996) is a 21-item, self-report inventory that assesses the presence and severity of current depressive symptoms in adults. Each item consists of four statements of varying degrees of symptom severity, and ranges from 0 to 3, with 0 indicating an absence of that particular symptom and 3 indicating the most severe level of that symptom. Ratings from the 21 items are then summed to calculate a total score, ranging from 0 to 63, with higher scores indicating more severe current depressive symptomatology. The BDI-II has excellent internal consistency (α = .92) and correlates highly with other measures of depression (r = .93) (Beck et al. 1996). Suggested categories for the BDI-II include: 0–13—minimal depression; 14–19—mild depression; 20–28—moderate depression; and 29–63—severe depression (Beck et al. 1996). The alpha coefficient for the current sample was .92.

Parenting—In order to reduce inflated associations due to shared method variance, children reported on parenting behaviors and parents reported on child internalizing problems. Preadolescents and adolescents are generally regarded as reliable reporters of parenting behavior (e.g., Brennan et al. 2003; Jacob et al. 2000).

The Maladaptive Guilt-Induction Measure (MGI; Donatelli et al. 2007) is a 22-item child-completed self-report questionnaire that assesses level of child-perceived parental guilt induction. Children and adolescents were presented with a series of statements regarding child perceptions of parental guilt induction and asked to rate how true or untrue each item was on a scale ranging from *1 (not at all true)* to *7 (very true).* The MGI consists of two subscales of parental guilt induction: disparagement and self-serving elicitation. The disparagement subscale consists of items that utilize parental guilt-induction via child directed criticism and blame (e.g., "My mother makes me feel responsible for making her life miserable"). The self-serving elicitation subscale also consists of items that utilize parental guilt-induction via exaggeration of parental sacrifices made for the child (e.g., "My mother always reminds me of favors and sacrifices she has made"). The alpha coefficients for the disparaging subscale and the self-serving elicitation subscale were .84 and .77, respectively.

The Alabama Parenting Questionnaire (APQ; Frick 1991) was used to assess child reported parenting behaviors from three categories: warmth/involvement, control (i.e., monitoring), and discipline. The measure consists of 35 items (after deleting redundant items) (Shelton et al. 1996), each rated on a 1 (*never*) to 5 (*always*) point scale, that yield five parenting constructs: Parental Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment. Because the two positive parenting scales (i.e., involvement, positive reinforcement) have been found to be highly correlated across informant and assessment formats (r = .41–.85; M = .67) and because the three-item Corporal Punishment construct has been found to have low internal consistency (α = .49) (Shelton et al. 1996), a three-factor model appears to be a better fit for the assessment of parenting practices.

A more recent principal component analysis of the APQ (Hinshaw et al. 2000) supports a three-factor structure: Positive Involvement (e.g., praise, attends school meetings, helps with homework; α = .89); Deficient Monitoring (e.g., child out with friends unknown to you, child comes home one or more hours late; α = .73); and Negative/Ineffective Discipline (e.g., threatens to punish but doesn't, spanks child, lets child out of punishment early; α = .77). As this factor structure is consistent with the three primary categories of parenting previously mentioned [(i.e., warmth/involvement, control (i.e., monitoring), and discipline (i.e., ineffective discipline)], we derived our three parenting measures based on Hinshaw et al. (2000). However, the three corporal punishment items, which had a low internal consistency score when forming a separate subscale (Shelton et al. 1996), were not included in the discipline construct as our focus was on ineffective, not negative, discipline, the latter being a primary parenting deficit associated with externalizing problems (Capaldi et al. 1997). Possible values for parental warmth/involvement ranged from 24 to 80 (α = .90), with higher values indicating more warmth and involvement; possible values for deficient monitoring ranged from 8 to 40 (α = .68), with higher values indicating *less* monitoring; and possible values for ineffective discipline ranged from 8 to 40 (α = .60), with higher values indicating *less* effective discipline.

Child Internalizing and Externalizing Problems—The Child Behavior Checklist for Ages 6–18 (CBCL/6–18; Achenbach and Rescorla 2001), a 118-item measure that assesses child behavioral and emotional problems over the last six months, was completed by the parent. Each item was rated as generally true (i.e., within the last six months) for his/her child, using the following scale: 0 (not true), 1 (somewhat or sometimes true), or 2 (very or often true). The CBCL/6–18 yields two broad-based factors, Internalizing and Externalizing, both of which were used in this study. The CBCL/6–18 has excellent internal consistency (α = .90 for

internalizing problems & $\alpha = .93$ for externalizing problems), has national norms, and correlates highly with other measures (i.e., Behavioral Assessment System for Children; Kamphaus et al. 2004) of broad-band total problem scales ($r = .75$ to .83) (Achenbach and Rescorla 2001).

Procedure

Participants were recruited through a variety of sources including: mental health agencies, doctor's offices, and hospitals; advertisements in local newspapers, television, and radio; and flyers. All prospective participating parents were initially screened with a diagnostic phone interview. After meeting initial eligibility criteria in the phone screen, parents and their child/adolescent were invited to come to a local university to sign consent and assent forms and take part in the baseline assessment. At this in-person assessment, experienced interviewers determined their final eligibility status. This assessment included the SCID-I/P with the parent (SCID-I/P; First et al. 2002), and K-SADS-PL first with the child/adolescent and then separately with the parent (K-SADS-PL; Kaufman et al. 1997). Although not part of the current study, parent-child dyads also participated in a behavioral observation.

Children/adolescents then completed on-line questionnaires including the MGI and the APQ, while parents completed online questionnaires, including the CBCL and BDI-II. In families with more than one child in the 9–15 year old age range, all baseline procedures were repeated for each child. Families were compensated for their participation in the baseline phase of the study ($40 per participating child and $40 per target parent).

Results

Preliminary Analyses

Parents and children with complete data were compared to those with missing data. No significant differences emerged on variables included in the analyses. The relation between each demographic variable listed in Table 1 and internalizing problems was calculated. As none accounted for significant variance, they were not included in the primary analyses. In addition, we examined whether child age or gender qualified the relation between guilt induction and internalizing problems. Neither variable moderated this relationship.

Means and standard deviations of the BDI-II, independent variables, and the dependent variable, as well as the correlations among these variables, are presented in Table 2. Because of the nested nature of the data, the correlations were computed only after cases had been weighted. Both the total score for the guilt induction measure and the two subscale scores are reported in Table 2. The two subscales were highly correlated ($r = .77$, $p < .01$); as a consequence, we conducted an exploratory factor analysis to ascertain whether two factors (subscales) would emerge. The analysis provided the following support for only one factor consisting of 12 items: (a) all items loaded above .50 on one factor; and (b) the eigenvalue for the factor was 5.70 with all additional eigenvectors having values less than one. Therefore, a single score, consisting of 12 items (6 items from the disparagement scale and 6 items from the self-serving elicitation scale), was utilized for parental guilt induction in the primary analyses.

The mean scores suggest that parental depressive symptoms, on average, were elevated and in the middle range of mild depression (BDI-II scores of 14–19). Almost one-third (31.5%) of parents scored in the moderate to severe range (BDI-II scores of 20 or greater). Based on the possible range of scores, guilt induction, deficient monitoring, and ineffective discipline occurred at relatively low levels whereas warmth/involvement occurred at a relatively high level. On average, children's internalizing problems were elevated but not in the clinical range;

however, three times as many children fell in the clinical range (31%) relative to the normative sample (10%) reported by Achenbach and Rescorla (2001).

The composite score for parental guilt induction was negatively correlated with warmth/involvement and positively correlated with deficient monitoring and ineffective discipline. Ineffective discipline was positively correlated with deficient monitoring. Preliminary support for our hypothesis regarding parental guilt induction emerged as the composite score for this variable was positively related to child internalizing problems. None of the remaining three parenting variables were related to the outcome measure.

Regression Analyses—Because multiple children from the same family were included in the data analyses, we used a two-level Linear Mixed Models Analysis in SPSS to examine the relation between parent-reported depressive symptoms, child-reported parenting, and parent-reported child internalizing problems. Given the correlational nature of data reported for multiple children within the same family, Linear Mixed Models Analysis estimates the parameters of the model on two levels: Level 1 represents observations at the individual level including parent-report of child internalizing and child report of parenting. Level 2 denotes clusters of units within the dataset such as parental depressive symptoms that maintain a constant relationship across all children within the same family. In the case of the current two-level clustered data set, Linear Mixed Models Analysis assumes a compound symmetry covariance structure and nests children within the same family into a single cluster. In the models tested, the fixed effects are the regression coefficients, which describe the relation between each independent and dependent variable and which were used to assess the effects of a continuous independent variable on the dependent variable. Family size served as the random factor in the model; the random-effects associated with family size were accounted for in the linear mixed-effects model, thereby controlling for the variability in the dependent variable associated with the inclusion of multiple children per family (West et al. 2007).

Child internalizing problems as reported by parents on the CBCL served as the dependent variable. Model 1 consisted of the BDI-II (in order to account for the context of parental current depressive symptoms) and child externalizing problems [in order to control for overlap with child internalizing problems and to be consistent with the study by McKee et al. (in press), which served as the impetus for this study]. Model 2 consisted of the variables in Model 1 plus the four parenting variables (composite score for guilt induction, warmth/involvement, deficient monitoring, and ineffective discipline).

The results are presented in Table 3. Support for the primary hypothesis emerged. After control variables and other parenting behaviors were accounted for, parent guilt induction (see Model 2 in Table 3) was a significant predictor of child internalizing problems. Higher levels of guilt induction were associated with higher levels of internalizing problems. Two of the other three parenting behaviors (deficient monitoring, ineffective discipline) were not significant; however, higher levels of parental warmth/involvement were associated with higher levels of internalizing problems. As the zero-order correlation for the parental warmth/involvement—child internalizing problems relationship was .00, the current findings represent a classical suppression effect (Cohen et al. 2003).

Secondary Analyses—Donatelli et al. (2007) examined two subscale scores of the MGI: disparagement and self-serving elicitation. They found disparagement related positively to child internalizing problems. Our correlational analyses indicated both disparagement and self-serving elicitation were positively associated with internalizing problems (see Table 2). Although the exploratory factor analysis we performed suggested the MGI is best conceptualized as one factor, we attempted to replicate the Donatelli et al. (2007) finding by repeating the mixed models analysis using the two sub-scales of the MGI rather than the total

score. Disparagement was significantly associated with internalizing problems after accounting for control variables and the three other parenting variables ($B = .31$, $p < .05$). Self-serving elicitation was not significant ($B = -.04$).

Discussion

This study examined the association of parental guilt induction, within the context of other parenting behaviors, with child internalizing behavior when a parent has a history of depression. Specifically, it was hypothesized that child reported parental guilt induction would be significantly positively associated with child internalizing problems.

Our findings supported the hypothesis as higher levels of parental guilt induction were related to higher levels of child internalizing problems when considered in the context of more traditionally assessed parenting variables. Previous research indicates that the excessive use of guilt induction is a parenting technique more commonly utilized by parents who have experienced depression (Donatelli et al. 2007; Susman et al. 1985) and is related to internalizing problems in children (Donatelli et al. 2007). The current findings replicated those of Donatelli et al. (2007) and provided an additional assessment of the guilt induction and internalizing problems association by utilizing different reports of the two constructs. In addition, the current study extended the earlier investigation by examining guilt induction in the context of more traditionally studied parenting behaviors.

One explanation for the relationship between parental guilt induction and child internalizing problems focuses on the problem solving abilities of children *and* the blame and responsibility placed on the child by a parent with a history of depression. Models of child development suggest that, relative to adults, children do not have the cognitive resources and problem solving skills to differentiate between harm they cause and harm they observe in others (Donenberg and Weisz 1998; Szabo and Lovibond 2004). As a consequence, they are more likely to accept responsibility for the distress of others (Donenberg and Weisz 1998; Zahn-Waxler and Robinson 1995). The acceptance of blame can continue even when children move into their adolescent years and possess more advanced problem solving skills. When this developmental phenomenon is coupled with the higher levels of guilt induction (e.g., directing an unwarranted and inappropriate amount of blame and responsibility toward a child) used by depressed, relative to non-depressed, parents (Donatelli et al. 2007; Susman et al. 1985), children may accept the blame for their parent's depression (Donatelli et al. 2007; Donenberg and Weisz 1998). Given the recurrent and chronic nature of depression, the assumption of responsibility for a depressed parent's mood can lead to feelings of blameworthiness over minor transgressions, progressing to learned helplessness (Peterson et al. 1993) and, eventually, child internalizing problems. Our secondary analyses are congruent with this explanation as parental guilt-induction that included disparagement (making the child feel guilty even when not at fault, emphasizing the child's burden on the parent, and frequent reminders of the child's past transgressions) was associated with internalizing problems in children.

In contrast to the relationship between parent guilt induction and internalizing problems, which emerged in both zero-order correlational analyses and the multiple regression, warmth was not related to internalizing problems in the correlational analyses but was *positively* related to such problems in the regression analysis. As we have noted, this finding is consistent with what has been termed a classical suppression effect (Cohen et al. 2003). There is a long history of skepticism about suppressor variables (e.g., Wiggins 1973). The skepticism is particularly warranted with the current findings as warmth has been *negatively*, not positively, related to internalizing problems when significant relationships do emerge between these two variables (see McKee et al. 2008). Because of the absence of a relation between warmth and internalizing problems in the correlational analyses, the general skepticism about suppression effects, and

the inconsistency of the finding with the existing literature, we believe the current finding is likely spurious and attempts to interpret it should not be undertaken.

Limitations of this study provide pathways for additional research. First, due to the cross-sectional nature of this study, causal conclusions about the association of parental guilt induction and child internalizing problems can not be reached. Second, generalizability of the findings are limited by sample characteristics: Relatively well-educated, primarily Caucasian participants with a history of depression and by exclusion of youth who met diagnostic criteria for selected disorders, including 9 who had a diagnosis of depression, dysthymia, or bi-polar disorder. However, even with the exclusion of these disorders, the current sample had elevated internalizing problem scores. In addition, the significant association found between parental guilt induction and child internalizing problems with a sample restricted by the exclusionary criteria for depression suggests that the finding is robust. Third, we limited our examination of parental depression to current depressive symptoms. Indicators of parental depressive episodes, such as number, timing, and chronicity, may have yielded different results. Finally, as guilt induction is a parenting construct that occurs more often in depressed than non-depressed samples (Donatelli et al. 2007; Susman et al. 1985), our findings may not generalize to parents who do not have a history of MDD.

The current findings were strengthened by the utilization of separate reporters of parenting and child problem behavior which reduced the potential for common reporter variance. Additionally, this study expands the parenting variables examined from the more traditionally studied parenting behaviors (e.g., warmth/involvement, monitoring, & discipline) typically related more to externalizing than internalizing problems (see McKee et al. 2008; McMahon et al. 2006) and found support that guilt induction relates to internalizing problems after these more traditional behaviors are taken into account.

In summary, parental guilt induction is related to child internalizing problems in the context of traditionally studied parenting behaviors constituted by warmth/involvement, parental control, and effective discipline. These findings suggest that parental guilt induction is a behavior worthy of consideration for inclusion in prevention and intervention parenting programs targeting child internalizing problem behaviors when parents have experienced depression. Expansion of parenting behaviors traditionally considered in programs for child externalizing problems (e.g., warmth/involvement, discipline) (McMahon et al. 2006) and internalizing problems (e.g., warmth/involvement, overprotection) (Rapee et al. 2000) to include guilt induction may enhance the effectiveness of these programs.

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Table 1

Demographic characteristics of the sample

	Mean	SD	Percent
Parent			
Age years	42.16	7.30	
Female			83.7
Ethnic minority[a]			13.9
Marital status			
Married/Living with someone as if married			68.5
Widowed			2.0
Divorced or annulled			16.1
Separated			4.7
Never married			8.7
Education			
Some high school (9th, 10th, 11th)			6.6
High School graduate (include equivalency exam)			8.4
Some college or technical school (at least one year)			28.7
College graduate			28.7
Graduate professional training (Masters or above)			26.3
Child			
Age years	11.49	1.94	
Female			46.9
Family yearly income			
Under $5,000			4.1
$5,000–9,999			4.7
$10,000–14,999			0.7
$15,000–24,999			12.2
$25,000–39,999			17.6
$40,000–59,999			20.9
$60,000–89,999			18.9
$90,000–179,999			17.6
$180,000 and over			3.4

[a]Percent identifying as Black/African American, Latino/Hispanic or Other/Non-Caucasian

Table 2

Means, standard deviations, and correlations among independent, and dependent variables

	Mean	SD	1	2	3	4	5	6	7	8	9
Control variables											
1. BDI-II	16.15	11.59	–								
2. CBCL—Ext	53.34	10.39	.14	–							
Parenting variables											
3. MGI composite score	25.51	13.92	.18*	.29**	–						
4. MGI disparagement[a]	12.97	7.95	.19*	.31**	.95**	–					
5. MGI self-serving elicitation[b]	12.54	6.80	.14	.23**	.93**	.77**	–				
6. APQ warmth/involvement[c]	55.34	11.79	−.02	−.24**	−.25**	−.28**	−.19*	–			
7. APQ deficient monitoring[d]	15.02	4.65	−.04	.17*	.48**	.45**	.47**	−.12	–		
8. APQ ineffective discipline[e]	15.53	4.67	.08	.27**	.50**	.48**	.46**	−.09	.71**	–	
Child outcome variable											
9. CBCL—Int	58.46	9.91	.16*	.52**	.26**	.29**	.20*	.00	.06	.12	–

*$p < 0.05$;

**$p < 0.01$

Note: N = 146. BDI-II: Beck Depression Inventory-II; CBCL—Ext: Child Behavior Checklist—Broadband Externalizing Symptoms T-Score; MGI: Maladaptive Guilt Induction Measure; APQ: Alabama Parenting Questionnaire; CBCL—Int: Child Behavior Checklist—Broadband Internalizing Symptoms T-Score

[a] Higher values indicate higher levels of disparagement-type guilt induction

[b] Higher values indicate higher levels of self-serving elicitation-type guilt induction

[c] Higher values indicate higher levels of warmth/involvement

[d] Higher values indicate higher levels of deficient monitoring

[e] Higher values indicate higher levels of ineffective discipline

Table 3

Child-reported parenting behaviors predicting parent-reported child internalizing symptoms

	F (each predictor)	B	SE	*p*
Dependent variable: child internalizing symptoms (CBCL)				
Model 1				
BDI-II	1.58	.07	.06	ns
CBCL—Ext	52.13	.49	.06	< .001
Model 2				
MGI composite score	5.50	.14	.06	< .05
APQ deficient monitoring	.23	−.10		ns
APQ warmth/involvement	4.56	.13	.22	< .05
APQ ineffective discipline	.55	−.16	.06	ns

Note: N = 146. *B* = unstandardized beta weight. BDI-II: Beck Depression Inventory-II; CBCL—Ext: Child Behavior Checklist—Broadband Externalizing Symptoms T-Score; MGI: Maladaptive Guilt Induction Measure; APQ: Alabama Parenting Questionnaire