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Literature has identified a significant relation between maternal physical abuse risk on child internalizing symptomatology during middle childhood. Further, positive peer relationships have also been noted to play a significant role in promoting prosocial behaviors and buffering stressful events during this age. However, little research has examined the potential moderation of peers on the relation between negative parenting and abuse risk on child internalizing symptomatology. The current study examined the buffering role of perceptions of peer support and social competence on the relation between abuse risk and child internalizing behaviors in a high abuse risk sample.

Participants consisted of 43 mother-child dyads from a mental health population in which either the mother or child was receiving clinical services. It was hypothesized that greater parental abuse risk would be related to greater internalizing problems as reported by both parents and children. Further, greater perceptions of peer support and social competence were predicted to relate to both lower reports of internalizing problems as well as lower reports of abuse risk. Lastly, perceptions of peer support and social competence were expected to buffer the relation of negative parenting and abuse risk with child internalizing behaviors and act as a protective mechanism. Overall, partial support for hypotheses was noted and findings differed based on reporter. A significant interaction was not observed between perceptions of peer support or social competence and the relation between abuse risk and child internalizing problems, with either child-report or parent-report, thereby not identifying a moderating role for perceived peer support.

PEER SOCIAL SUPPORT AS A MODERATOR OF CHILD ABUSE RISK AND
CHILD INTERNALIZING SYMPTOMATOLOGY

by

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CHAPTER I

INTRODUCTION

Child abuse is defined as “an act or failure to act by a parent, caregiver, or other person as defined under state law that results in physical abuse, neglect, sexual abuse, emotional abuse, or an act or failure to which presents an imminent risk of serious harm to a child” (Department of Health and Human Services [DHHS], 2012, p. 115). Statistics estimate over 3.4 million suspected cases of child abuse and neglect in 2011 in the United States. However, only about 681,000 of these cases were confirmed/substantiated suggesting that a majority of cases of abuse do not meet the high standards for legal substantiation (DHHS, 2012). Of substantiated cases, 17.6% are related to physical abuse, defined as “a physical act that caused or could cause physical injury to a child” (DHHS, 2012, p. 122). The current study targets physical abuse risk specifically.

The prevailing evidence suggests the high case loads and limited availability of resources prevent agencies from responding efficiently to referrals and providing the necessary oversight. Despite the volume in reported cases, reports to child protective services severely and consistently underestimate the scope of maltreatment (Sedlak et al., 2010). Anonymous surveys of physical abuse alone have predicted millions of children are regularly hit with objects, with 11% of children experiencing severe forms of violence (e.g., kicking, beating; Straus, 2001a; Straus & Gelles, 1986). Research examining the scope of physical abuse suggests the true prevalence is in fact between 5-11 times greater

than reported (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). The irrefutable evidence of high numbers of unsubstantiated cases and underreporting suggests researchers should take a more preventative approach in examining abuse, which might help target the vast majority of cases that remain undetected.

One avenue toward this end is to target universal (community-wide prevention) or indicated (individuals who exhibit risk factors) prevention groups, such as high-risk mothers and children. Although no specific single cause for abuse has been identified, a number of risk factors have been determined to be characteristic of abusive families. For example, environmental factors such as poverty and unemployment are related to greater child maltreatment risk (Drake & Pandey, 1996). One explanation for this risk is that low income is related to greater parental stress, which also places children at a higher risk for being abused (Plotnik, 2000). Further, parental and family characteristics such as maternal age and relationship status have also been found to place mothers at risk for engaging in physically abusive discipline strategies, such that younger maternal age at child birth and single parent status are related to elevated risk (Sedlak et al., 2010; Straus et al., 1998).

In addition, mothers with mental health problems are at higher risk for abusing their children (Belsky, 1993; Famularo, Kinscherff, & Fenton, 1992; Pears & Capaldi, 2001) just as children with mental health problems are more likely to be abused (Wolfe, 1999). Mothers with mental illness also have significantly more inadequate parenting skills than mothers who do not have a mental illness (Allen-Meares, Blazevski, Bybee, & Oyserman, 2010; Oyserman, Mowbray, Allen-Meares, & Firminger, 2000). Children

with behavioral problems have also been shown to increase frustration in the family because they are difficult to ignore and harder to parent, resulting in more recurrent discipline exchanges, thus placing the child at a greater risk for abuse (Wolfe, 1999; McElroy & Rodriguez, 2008). At-risk parents are also more prone to consider their children's behavior as problematic, thereby increasing parents' risk to abuse (Daggett, O'Brien, Zanolli, & Peyton, 2000). Targeting intervention and assessment toward these mental health risk groups, an indicated prevention sample, can potentially minimize abuse risk for these children.

Not only are children with behavior problems at risk for abuse, child physical abuse has been identified as an adverse risk factor for the development of behavioral problems in children as well (Runyon, Deblinger, Ryan, & Thakkar-Kolar, 2004). Even physical discipline that does not warrant the label of abuse may have significant negative effects on the recipients (Gershoff, 2002; Straus & Kantor, 1994). Correspondence in outcome findings between abuse and physical discipline is consistent with the observation that physical abuse often occurs when parents unintentionally increase their application of physical discipline toward their child (Herrenkohl, Herrenkohl, & Egolf, 1983; Kolko, 1996; Whipple & Richey, 1997). Therefore, many researchers choose to conceptualize child physical abuse in terms of a continuum of physical aggression, in which abuse is viewed to occur somewhere along this continuum (Graziano, 1994; Whipple & Richey, 1997). This approach represents another opportunity to prevent abuse by identifying risk for parent-child aggression before parents engage in abuse.

Research has begun to integrate the continuum concept in risk assessment for abuse and move toward this preventative approach. The term child abuse potential was one approach developed in an effort to prevent occurrences of abuse by identifying parental practices and beliefs that are predictive of abuse along this continuum (Milner, 1994). An assessment of child abuse potential estimates the probability that a parent will cross the line from physical discipline into maltreatment by evaluating interpersonal and intrapersonal difficulties in parents who may become abusive (Milner, 1994). Consequently, an assessment of child abuse potential relates to factors contributing to a parent's level of distress that may impact their individual risk to employ physically aggressive discipline strategies that move toward the maltreatment end of the physical aggression continuum. Another approach to conceptualizing a parent's risk for engaging in physically abusive discipline strategies is to examine attitudes and beliefs about parenting that are indicative of greater endorsements of physical discipline strategies (Bavolek & Keene, 2001). Researchers vary in their approach to conceptualizing abuse risk. Ultimately these approaches often include varying combinations of environmental contributions (socio-economic status, maternal age, education level; Sedlak et al., 2010), factors associated with parental personal and interpersonal distress (child abuse potential; Milner, 1994), negative attitudes and beliefs about parenting (Bavolek & Keene, 2001), as well as parenting practices and behaviors (Haskett, Scott, & Fann, 1995).

Child Internalizing Problems and Abuse Risk

Research examining outcomes associated with child abuse and child abuse risk has primarily focused on externalizing problem outcomes (Lansford, Wager, Bates, Pettit,

& Dodge, 2012; Straus, 2001). Externalizing difficulties include aggression, hostility, acting-out behavior, or delinquency (Achenbach, 1982). Studies have implied that, through social learning theory, children from abuse risk homes learn to model aggression from their parents (Straus, 2001). Although externalizing problems can have enduring effects, a majority of mental health problems in adulthood are related to behaviors that include difficulties such as fearfulness, anxiety, depression and social withdrawal (Hartung & Widiger, 1998), referred to as internalizing problems in children (Achenbach, 1982). Internalizing problems in childhood and adolescence can lead to further psychological impairment in adulthood (Copeland, Shanahan, Costello, & Angold, 2009; Lewinsohn, Rohde, & Seeley, 1998). Therefore, understanding such internal processes in childhood can better inform the development in adulthood of such problems and/or prevent later maladaptive outcomes. However, compared to externalizing problems, relatively little research has examined abuse potential and internalizing behaviors in children.

Examining child problem behaviors in the context of the family environment is critical. The family has historically been considered the most immediate and potentially the most influential factor in a child's development (Bronfenbrenner, 1979). Significant child impairment can thus result from a distressing parent-child relationship. Findings have shown that youth who experience stressful life events in general are more prone to the development of internalizing problems (Cole, Nolen-Hoeksema, Girgus, & Paul, 2006), thereby underscoring the importance of examining child outcomes in the stressful context of abuse risk homes. The majority of research in this area that has considered

internalizing problem outcomes has focused solely on identified abuse victims, not abuse risk. One longitudinal study of abuse victims found that chronic child maltreatment has significant long term effects on child emotional problems such as anxiety and depression (Ethier, Lemelin, & Lacharite, 2004). Another study demonstrated that victimized children of abuse have reported high levels of child aggression as well as depression, suggesting a connection between abuse and depressive symptomatology (Johnson et al., 2002).

The aforementioned studies highlight the significant maladaptive impact abuse has on children, implying a relation between child abuse and subsequent internalizing symptomatology. However, little has been done examining the development of internalizing behaviors in children raised by abuse-risk parents, although parental abuse potential has been linked to child internalizing in a community sample (Rodriguez, 2006). This gap in the literature underscores the importance of examining this relation for multiple reasons. Most importantly, by observing a relation between parental abuse risk and children's internalizing symptomatology, we can begin to take a preventative approach to targeting such parents prior to abuse in the hopes of decreasing the development of internalizing problems in their children. However, detecting this relation alone does not provide adequate insight. An understanding of the potential moderators involved in mitigating this connection will allow for the creation of more informed and effective prevention and treatment strategies. Although parental qualities may be important in the relation between parental abuse risk and children's internalizing problems, non-familial factors may serve to influence this relation as well. Through

knowledge of such processes, we can attempt to prevent and offset the trajectory to problematic internalizing behaviors that may follow these children into adulthood.

Protective Factors: Perceived Peer Support

Initial conceptualizations of psychopathology focused solely on risk factors, but more contemporary literature emphasizes the importance of protective factors that may buffer or offset proposed risks. Risk and resilience theorists conceptualize risk as social or psychological factors that relate to the development of poor outcomes in individuals (Harvey & Delfabbro, 2004). In contrast, resilience refers to overcoming the negative effects of risk by offsetting the maladaptive trajectory associated with risk factors (Luthar, Cicchetti, & Becker, 2000; Rutter, 1985; Tiet & Huizinga, 2002). This approach focuses on strengths rather than deficits of an individual and these factors can either be within the individual (i.e., competence, coping skills) or external to the individual (i.e., parental or peer support). With the hypothesis that parental child abuse risk acts as a risk factor for maladaptive internalizing symptomology in children, a protective factor that may buffer these parental effects includes children's perception of social support, specifically peer support.

A majority of the literature examining peers in the context of negative home environments has focused on adult reports of children's peer relations. These include the frequency of interaction with peers as well as reported peer difficulties as observed in the classroom. This research notes that early peer difficulties predict later maladjustment such as adult psychopathology (Bagwell, Schmidt, Newcomb, & Bukowski, 2001; Parker & Asher, 1987). In contrast, findings suggest that positive peer relationships in the

context of negative home environments moderate adverse child development and functioning (Criss, Shaw, Moilanen, Hitchings, & Ingoldsby, 2009; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Lansford, Criss, Pettit, Dodge, & Bates, 2003). One such study examining middle school children found that high quality peer relationships as reported by parents reduced the association between negative parenting and externalizing behaviors exhibited in school (Lansford et al., 2003). A prospective longitudinal study of maltreated children and a matched comparison group examined the relationship of maltreatment, self-esteem, and peer relations (Bolger, Patterson, & Kupersmidt, 1998). Greater severity of maltreatment was associated with heightened peer difficulties and lower self-esteem. However, for some groups of maltreated children, having positive peer relationships moderated the effects over time on self-esteem (Bolger et al., 1998).

Given an already established relation between positive peer relations and child outcomes, moving to examine a child's perception of their peer support may inform potential social-cognitive factors that act as a buffer against parental abuse risk. According to the stress buffering model, positive social relationships aid children who are at risk for or are experiencing stress (Barrera, 1986; Cohen, Underwood, & Gottlieb, 2000). As noted above, research has demonstrated that positive peer relationships are indeed predictive of positive outcomes in children, such as prosocial behaviors (Coie, Dodge, & Kupersmidt, 1990; Colarossi, & Eccles, 2003; Demaray & Malecki, 2002; Perdue, Manzeske, & Estell, 2009; Swearer, Grills, Haye, & Cary, 2004). Positive peer relations also provide youth with a sense of security and support (Waldrip, Malcolm, & Jensen-Campbell, 2008). However, a child's perceptions of the support provided by their

peers may demonstrate a social-cognitive factor that impacts internalizing symptomatology. Research has found that perceptions of greater peer support specifically have a negative relationship with a child's report of depression and anxiety (Ezzell, Swenson, & Brondino, 2000). However, research has not identified the role that these perceptions of social support may play in elementary aged children in the context of a high abuse risk environment. By understanding the role that perceptions of peer support play, we can design interventions to enhance social relationships that could reduce internalizing symptoms even in the context of elevated abuse risk. If perceived support does in fact act as a moderator in the relationship between abuse risk and child internalizing outcomes, we can begin to take preventative measures with high risk samples by providing children with the necessary skill set to develop positive peer relations.

Current Study

This study adopted a multiple informant approach and sampled an at-risk population of mother-child dyads, in which either the mother or child were receiving mental health services. Both mothers and children responded to questions relating to the child's mental health as well as perceptions of peer support for the child, with children's perceptions of peer support being the primary focus of analyses. Children's behaviors are known to vary from one context to the next, and informant reports may be affected by a given individual's perspective. Consequently, many studies have shown that reports of behaviors from multiple sources only correlate moderately with one another (Achenbach, McConaughy, & Howell, 1987). However, a multi-informant approach is the preferred

method of child behavioral assessment (Semrud-Clikeman, Bennet, & Guli, 2003). A vast majority of data on children's behavior has only represented a parental perspective. Reliance on parental reports alone becomes problematic due to concerns regarding parental biases (Seifer, 2005) and misinterpretation of children's behaviors (Kolko, 2002). There have also been a number of concerns regarding the reliability and validity of child self-reports alone, due to questions surrounding young children's ability to recognize their emotions (Stone & Lemanek, 1990). Given this information that a single source of data can result in bias and essentially only expresses a single perspective, it underscores the value in taking a multiple informant approach. This approach will provide a more complete picture of the child's behaviors (Achenbach, 1995).

Consequently, the goal of the proposed study was to assess the possible relation between abuse risk with internalizing symptomatology in middle childhood in a high-risk sample utilizing both mothers' and children's perspectives. The current study also specifically examined the role of a potential protective factor, namely perceived peer support, and its ability to moderate the aforementioned relation. First, greater parental abuse risk was hypothesized to relate to greater internalizing symptomatology in children. Second, perceived peer support was expected to have an inverse relation to internalizing problems in children. A significant negative relation was also predicted between perceptions of peer support with abuse risk. Lastly, perceptions of peer support were hypothesized to moderate internalizing symptoms and act as a buffer against high abuse risk.

CHAPTER II

METHOD

Participants

Participants in this study consisted of an at-risk, diverse sample from a larger parenting study. The sample included 43 mother-child dyads, with a maternal mean age of 37.08 years ($SD=5.74$). Children's mean age was 8.56 years ($SD=1.82$), with 24.4% female and 75.6% male. The majority of mothers were biological parents (97.2%). All families were recruited such that either the mother or child were required to be receiving mental health services (28.2% mothers, 43.6% children, and 28.2% both mothers and children were in therapy). Participants' racial/ethnic representation was diverse, with 40.5% Caucasian, 51.4% African American, and 8.1% Other; moreover, 11.1% of the sample identified as Hispanic or Latino. Mothers primarily identified as single parents (68.4%), a majority of whom completed under four years of college education (66.7%), with a mean annual income between \$8,000-13,000, with a sizeable minority (27%) reporting an annual family income below \$3,000.

Materials

Parent Abuse Risk Measures

Child Abuse Potential Inventory (CAPI; Milner, 1986). The 160-item Child Abuse Potential Inventory measures factors associated with identified abusers, using six subscales to capture abuse risk (Distress, Rigidity, Unhappiness, Problems with Child and

Self, Problems with Family, and Problems with Others), with only 77 items comprising the Abuse Scale, and the remaining items acting as fillers. The CAPI was developed as a screening tool to assess the extent to which parents endorse factors identified in substantiated perpetrators. Items are variably weighted and answered in an Agree/Disagree format. Higher scores on the Abuse Scale are associated with greater risk for engaging in physical abuse. The measure shows reliability across age, gender, education level, and ethnic group, with internal consistency for the Abuse Scale ranging from .92 to .96 for both abusive and non-abusive populations (Milner, 1986). The measure has shown an accurate classification rate at 89.2% for predicting confirmed child abusers (Milner, Gold, & Wimberley, 1986).

Adult - Adolescent Parenting Inventory-2 (AAPI-2; Bavolek & Keene, 2001). The AAPI-2 is a 40-item measure that assesses the degree of agreement with parenting beliefs and behaviors regarding child rearing associated with abuse risk on a 5-point Likert scale. The measure examines four domains: Inappropriate Expectations, Lack of Empathy, Belief in Corporal Punishment, and Parent–Child Role Reversal. Scores are obtained by totaling ratings across items which were rated from 1-5, resulting in a total score range from 40-200. *Higher* scores are indicative of more *positive* parenting attitudes and beliefs. The measure has demonstrated high internal consistency for the AAPI-2 Total score at .85 (Conners, Whiteside-Mansell, Deere, Ledet, & Edwards, 2006). Internal consistency of the AAPI-2 Total score in the current sample yielded a Cronbach’s alpha of .93.

Parent Perception Inventory (PPI; Hazzard, Christensen, & Margolin, 1983). The Parent Perception Inventory is a measure that assesses parenting practices from a child's perspective. The PPI consists of 18 items, nine of which assess positive parenting behaviors (e.g., affection) and nine that assess negative parenting behaviors (e.g., forms of punishment). Children are asked to respond to items on a 5-point scale ranging from "Never" (0) to "A lot" (4) to indicate the extent to which a parent engages in the presented behaviors. Items are summed to obtain three separate scores (Positive Parenting, Negative Parenting, and Total Parenting). Total PPI score ranges from 0-72, with higher scores indicating greater negative parenting practices. The PPI Total was used as a supplemental measure that has been shown to be significantly correlated with both the AAPI-2 and CAPI Abuse Scale (Rodriguez & Tucker, in press). The reliability coefficient for the PPI Total score in the current sample was .75.

Internalizing Measures

Child Depression Inventory (CDI; Kovacs & Beck, 1977). The Child Depression Inventory is a 27-item self-report measure for children, a downward extension of the adult Beck Depression Inventory (Beck, 1961), measuring depression in children and adolescents. Children are asked to answer items consisting of three statements ranked in severity (e.g., "I am sad once in a while," "I am sad much of the time," "I am sad all the time"), and assigned scores ranging from 0 to 2, providing a total score across items ranging from 0 to 54. Children are asked to indicate which statement best describes how they have felt in the past two weeks. The measure has shown reliability across age and gender, and acceptable scores for internal consistency (Kovacs, 1983), as well as criterion

validity (Saylor, Finch, Spirito, & Bennett, 1984). The CDI alpha coefficient obtained was strong in the current sample, at .86.

State Trait Anxiety Inventory for Children (STAIC; Spielberger, 1983). The 20-item STAIC self-report questionnaire assesses *trait anxiety*, a persistent form of anxiety in individuals, and *state anxiety*, an immediate, temporary form of anxiety. This study targeted the STAIC trait anxiety questions to best connect with the proposed research questions. Children respond to statements relating trait anxiety (e.g., “I worry about making mistakes,” or “I am shy”) on a 3-point Likert scale ranging from “Hardly ever” (1) to “Often,” (3) resulting in a total score ranging from 20-60. Internal consistency for the STAIC Trait Anxiety scale is .78 for boys and .81 for girls (Spielberger, 1983). A Cronbach’s alpha of .86 was obtained for the current sample.

Child Behavior Checklist (CBCL; Achenbach, 1991). The 118-item CBCL is a widely used parent report measure used to assess children’s competence and problem behaviors. Items are answered on a 3-point scale, ranging from 0-2 (Not true, Somewhat or Sometimes True, and Very True or Often True). Eight subscales assess problem behavior (Withdrawn/depressed, Somatic Complaints, Anxious/depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior) to contribute to a Total Problem score. In addition, two broadband scales (Internalizing and Externalizing) can be derived, with the Internalizing score of most interest in this study. The Total Internalizing score ranges from 0-64. Test-retest reliability is .87 for the Internalizing scale and the scale has demonstrated internal consistency at $\alpha = .89$ (Achenbach, 1991). In addition, the Competence scale includes

three subscales, with the *Social scale* (number and quality of relationships with peers and others) of interest for the current study to obtain parent report of peer relations.

Reliability coefficients of .91 and .62 were obtained for the CBCL Internalizing and Social Competence scale, respectively, in the current study.

Perceived Peer Support Measure

Perceptions of Peer Support Scale (PPSS; Ladd & Kochenderfer-Ladd, 2002).

The PPSS is a 12-item child self-report measure of peer relations. Four items on the scale assess the frequency with which children experience four forms of victimization (physical, indirect verbal, direct verbal, and general), whereas the remaining eight items represent examples of peer support adapted from the original Perception of Peer Support Scale (Ladd, Kochenderfer, & Coleman, 1996). Items are answered in reference to the child's perception of peer relations (e.g., "Does any kid in your school or neighborhood play games with you?") on a 3-point scale ranging from never (0) to a lot (2). An overall Support Total score is calculated by reverse scoring the four victimization items and then summing all 12 items to create a Total Peer Support score ranging from 0-24. The peer support items demonstrate high internal consistency between .85-.88 (Ladd et al., 1996). Reliability analyses for the current sample yielded a Cronbach's alpha of .78, demonstrating acceptable internal consistency.

Procedure

Participants were recruited as part of a larger parenting study of mothers and their 6-11 year old children in a mental health population through flyers distributed at mental health agencies across the Piedmont Triad area. Individuals interested in participating

contacted the number provided on the flyer in order to determine qualification for the study (either mother or child must be receiving mental health services) and arranged a time to participate in an in-home family assessment. Informed consent from mothers, as well as assent from children, was obtained upon arrival to their home.

Mothers completed self-report questionnaires on a laptop computer, which displayed questionnaire items individually. Responses to these items were automatically stored in a programmed database and identified only by a randomly generated identification number with no linkage to the participant's name or identifying information. Thus, parents were assured of anonymity in responding. The full protocol took parents approximately 90-120 minutes to complete, and they received \$25 as compensation for participation in the study.

Children recorded and responded to self-report measures that were verbally administered by a trained graduate student. The items were read aloud to the child in order to ensure the item was accurately administered and effectively understood by the child. Child responses were coded with the same identification number that is randomly generated for the parent and was also in no way linked to the child's name or identifying information. The child protocol took approximately 50-60 minutes. Children received a small toy prize as compensation for participation in the study.

CHAPTER III

RESULTS

Descriptive Analyses

To characterize the sample, analyses were first conducted in order to compare this sample with normative means for the variables of interest (See Table 1 for sample means and standard deviations). The current sample obtained a mean CAPI Abuse scale score of 236.40, which is representative of high maternal abuse risk (significantly higher than the cut off score of 166; $t= 3.66, p < .001$; Milner, 1986). In addition, mothers reported a mean AAPI-2 score of 144.26, which is lower than the normative range of 152-157, wherein lower scores are indicative of higher abuse risk (Bavolek & Keene, 2001). Negative and positive parenting behaviors as reported by children on the PPI were comparable to scores reported in previous research (Glaser, Horne, & Myers, 1995). Children's internalizing symptoms as reported by the mothers on the CBCL Internalizing scale were in the T score range of $T= 61-64$ which is representative of at-risk symptoms. The obtained parental report on the CBCL Social Competence score placed children in the normal range of social functioning. With regard to child-report measures, a mean score of 10.01 was observed on the CDI, which is representative of children in the "normal" range and below the identified cutoff of less than 13, which is used to identify children in the "slightly above average range" (Kovacs, 1992). The mean score of 39.13 for anxiety symptoms, as assessed by the STAIC, was significantly higher ($t = 6.98, p <$

.001) than what has been reported as normative in previous studies (raw score= 30.84, Dorr, 1981, or 30.7, Perrin & Last, 1992)

Consideration of Potential Covariates

Preliminary analyses were conducted to examine the potential need for covariates. Differences were examined in child internalizing symptomatology, children's perceptions of peer support, and maternal abuse risk across demographic variables. For child reported measures, no significant differences were noted for child gender on any outcome variables ($p > .05$). However, child age was significantly inversely correlated with both CDI Total score ($r = -.36, p < .05$) and PPI Total score ($r = -.36, p < .05$), indicating that higher depression scores and more negative parenting behaviors were associated with younger child age.

For parent measures, potential covariates were primarily identified with respect to maternal abuse risk. A significant inverse correlation was identified between maternal age and CAPI Abuse Scale score ($r = -.37, p < .05$), such that younger maternal age was associated with greater abuse risk on the CAPI Abuse Scale as previously noted in the literature. In addition, those who reported a lower annual family income obtained greater CAPI Abuse Scale risk scores ($r = -.38, p < .05$) and more negative parenting attitudes as indicated on the AAPI-2 Total ($r = .58, p < .01$). Furthermore, analyses indicated that lower maternal education level was significantly correlated with negative parenting beliefs on the AAPI-2 Total ($r = .60, p < .01$). In addition, mother's relationship status was recoded into two dichotomous groups (single parent household or two parent household), given that a majority of mothers indicated living in a single parent home or with a

partner. T-test analyses revealed no significant differences between maternal relationship status on the CAPI Abuse Scale or APPI-2 Total scores.

Furthermore, given the racial and ethnic distribution, racial and ethnic groups were recoded to create a dichotomous variable that examined differences between Caucasian versus all other ethnic minorities. A significant mean difference was not found between Caucasian mothers and ethnic minority mothers on the CAPI Abuse Scale score ($p > .05$). However, a significant mean difference was noted on the APPI-2 Total, wherein ethnic minority mothers reported a significantly lower mean score ($M = 133.0$, $SD = 23.78$) than Caucasian mothers ($M = 162.23$, $SD = 19.67$). Given that lower scores on the AAPI-2 Total are indicative of greater negative parenting beliefs, ethnic minority mothers endorsed significantly greater negative, at-risk parenting beliefs when compared to Caucasian mothers.

Significant group differences were also noted between CAPI Abuse Scale scores and who was the recipient of mental health services, such that mothers from households in which both mothers and children were receiving mental health services evidenced greatest abuse risk ($M = 303.64$, $SD = 67.76$). In addition, mothers from households in which only the mother was receiving mental health services reported a higher CAPI Abuse Scale score ($M = 255.46$, $SD = 133.62$) than households in which only the child was receiving mental health services ($M = 193.77$, $SD = 116.59$). Similarly, in households in which both mothers and children were receiving mental health services, mothers endorsed the greatest CBCL Internalizing symptomatology in children ($M = 17.19$, $SD = 11.37$). However, households in which the mother alone was receiving services, child

CBCL Internalizing symptomatology was rated lowest ($M= 7.10$, $SD= 4.73$).

Collectively, the findings suggest that households in which both mothers and children are receiving mental health services are at greatest risk for physical abuse and evidenced greatest reported child internalizing symptoms.

Correlational Analyses

See Table 1 for correlations between variables of interest. For parent measures, as expected, the CAPI Abuse Scale scores were significantly negatively correlated with AAPI-2 Total scores. However, contrary to expectations, the parent reported CAPI Abuse Scale and AAPI-2 Total scores were not related to child reported PPI Total scores. Furthermore, neither the CAPI Abuse Scale nor the AAPI-2 Total were related to either child or parent-reported internalizing measures (CDI, STAIC, and CBCL Internalizing). With regard to measures of social competence and peer support, the CAPI Abuse Scale was significantly related to children's reported perceptions of peer support on the PPSS, such that higher abuse risk was associated with children's report of lower peer support. However, CAPI Abuse Scale scores were not significantly related to parent report on the CBCL Social Competence Scale, although in the expected direction. A significant correlation was noted however, between parental report on the CBCL Internalizing scale and the CBCL Social Competence scale. Overall, findings demonstrate that parent reported measures tended to correlate with one another with the exception of parent reported child internalizing symptomatology. Interestingly, there was little association across parent reported measures and child reported measures aside from the significant

relation observed between parental abuse risk on the CAPI Abuse Scale and children's reported perceptions of peer support on the PPSS.

With regard to child-reported measures, and as expected as measures of internalizing symptoms, the CDI and STAIC were significantly intercorrelated. In addition, the CDI was also significantly correlated with both child report of negative parenting on the PPI Total and inversely related to children's perceptions of peer support on the PPSS. The PPI Total was marginally associated with STAIC scores. The PPI Total and PPSS were also significantly inversely related, such that high child reported negative parenting was correlated with lower perception of peer support. Similar to the above findings within parent report, child-reported measures were significantly related to one another. In addition, children's self-reported perceptions of peer support were also significantly related to parent reports of child social competence, suggesting correspondence specifically regarding children's social functioning.

Correlations Considering Covariates

Multiple regression analyses were conducted to reassess the above correlations controlling for the potential impact of covariates to clarify whether the observed associations were confounded by demographic factors. Analyses were primarily conducted to assess whether the aforementioned relations corresponded to the simple bivariate associations controlling for the demographic variables that characterized these high abuse-risk households (Household income, Mother's education level, Mother's relationship status, Mother's race/ethnicity, Mother's age and Child's age). An examination of the CAPI Abuse Scale score association with CDI with demographic

controls still yielded a nonsignificant model suggesting that child reported depression is not associated with parental abuse risk as noted in the simple bivariate comparisons above. Similar findings were noted when examining the association of the AAPI-2 Total with the CDI when controlling for the aforementioned demographic variables, such that the AAPI-2 Total did not significantly relate to the CDI. However, the regression examining the relation between PPI and CDI, specifically to determine whether a significant relation would still be found between the two variables, confirmed that the PPI was still significantly related to the CDI even after controlling for demographic variables, consistent with the simple bivariate association.

Analyses were also performed to assess the relations between the CAPI Abuse Scale, AAPI-2 Total and PPI with the STAIC controlling for demographics. With regard to the CAPI Abuse Scale, the relation with the STAIC remained nonsignificant after controlling for potential covariates, as did the AAPI-2 and STAIC association. In terms of PPI Total score's association with the STAIC beyond demographic variables, this relation trends toward significance ($p = .07$), comparable to that observed in the simple bivariate correlation.

For parent reported child internalizing symptoms on the CBCL, correlations were reconsidered controlling for the aforementioned demographic variables. The CAPI Abuse Scale was not significantly associated with the CBCL Internalizing Scale after controlling for demographic variables. Similar findings were observed when conducting analyses to reassess the relation between the AAPI-2 Total and PPI Total with the CBCL

Internalizing scale, indicating that simple bivariate correlations were sufficient in explaining these relations.

Examining Potential Interactions

Interaction analyses were first examined within reporters to assess potential interaction effects. Given the significant findings of the PPI Total with CDI scores, a multiple regression was conducted to assess the interaction of perceptions of peer support and PPI Total in explaining additional variance in the CDI above and beyond their main effects. First demographic controls were entered into the model, then both PPI and PPSS scores were entered at step 2 as main effects. Finally, the interaction of PPSS by PPI was entered using a centered, multiplicative term. The full model resulted in an $R^2 = .48$, $F(9, 34) = 3.44$, $p < .01$ (see Table 3). Despite the significant role of both PPI and PPSS in predicting CDI scores, the interaction of PPSS by PPI was not significant, thereby indicating that perceptions of peer support were not significantly different at varying levels of perception of negative parenting in relation to the CDI score. Therefore, although a significant relation exists between child reported negative parenting and child reported depression, perceived peer support did not buffer the relation of negative parenting with child depression. In addition, when examining the potential moderating effect of perceptions of peer support on the relation between PPI Total and STAIC scores, a final model of $R^2 = .18$, $F(9, 34) = .83$, $p = \text{n.s.}$ was obtained (see Table 4). After controlling for demographic variables, the interaction of PPI by PPSS was found to be statistically nonsignificant. Thus, perceptions of peer support were also not found to

significantly vary at differing levels of child reported negative parenting in relation to child reported anxiety symptomatology on the STAIC.

Analyses were then conducted to assess the potential buffering role of parent reported social competence on the CBCL Social Competence scale in relation to internalizing symptomatology and abuse risk as reported by parents on the CAPI Abuse Scale and the APPI-2. The model examining the relation of CAPI Abuse Scale predicting the CBCL Internalizing scale and moderating role of CBCL Social Competence scale, after controlling for potential covariates, yielded a model of $R^2 = .46$, $F(9, 33) = 3.16$, $p < .01$. Findings reveal, however, that the interaction of CBCL Social Competence by CAPI Abuse Scale was statistically nonsignificant (See Table 5). Again, demonstrating a similar finding as above, although parent reported social competence is significantly related to parent reports of child internalizing symptomatology (a main effect), there is no moderating role of social competence on the relation between parent reported CAPI Abuse Scale score and child internalizing symptoms on the CBCL Internalizing scale. When examining the interaction of parent reported social competence by negative parenting attitudes and beliefs on the AAPI-2 Total, similar findings were observed. Analyses yielded a model of $R^2 = .47$, $F(9, 33) = 3.23$, $p < .01$ (see Table 6), with a significant main effect of CBCL Social Competence in predicting CBCL Internalizing but also indicating a nonsignificant interaction between the AAPI-2 Total and CBCL Social Competence scale.

Following these analyses examining within-reporter effects, multiple regression analyses were conducted to examine the potential interaction effects across raters. Models

specifically examined child-reported internalizing symptomatology as it may relate to parent-reported abuse risk and child-reported perceptions of peer social support, wherein children were considered the most direct reporters of their internalizing problems and social support. First, multiple regression analyses were conducted to assess the potential moderating role of PPSS on the relation between CAPI Abuse scale and CDI scores. The model yielded a $R^2 = .35$ $F(9, 34) = 2.00$, $p > .05$, noting a significant main effect for perceptions of peer support and a nonsignificant interaction between CAPI Abuse Scale and PPSS (See Table 7). Similar to the aforementioned interaction findings observed for child reported anxiety with child-reported negative parenting and perceptions of peer support, the model examining cross-reporter interaction effects of PPSS on the relation between STAIC and CAPI Abuse scale yielded a nonsignificant model at $R^2 = .17$ $F(9, 34) = .79$, $p = ns$, indicating a nonsignificant interaction between CAPI and PPSS with regard to child reported anxiety on the STAIC (see Table 8). Lastly, analyses were conducted to examine the potential moderating role of child-reported perceptions of peer support on the PPSS on the relation between parent reported negative parenting attitudes on the AAPI-2 and child-reported internalizing symptomatology on both the CDI and STAIC. Both models yielded nonsignificant results. The model examining the relation of the aforementioned constructs with regard to CDI resulted in an $R^2 = .36$ $F(9, 34) = 2.11$, $p > .05$ (See Table 9), and the model examining the potential interaction effects as related to the STAIC yielded an $R^2 = .13$ $F(9, 34) = .58$, $p = n.s$ (see Table 10). These results indicate that cross-informant examinations of children's perceptions of peer support does

not moderate the relation between parent-reported negative attitudes about parenting or abuse potential with child-reported internalizing symptomatology.

CHAPTER IV

DISCUSSION

The current study examined the potential moderating role of children's perceptions of peer support on the relation between maternal physical abuse risk and child internalizing symptomatology. Specifically, the present study sought to examine these relations in a high abuse risk sample; therefore, participants consisted of 43 mother-child dyads from a mental health population in which either the mother or child was receiving clinical services. In-home interviews were conducted with dyads, wherein mothers completed an assessment for abuse risk (Child Abuse Potential Inventory and Adult-Adolescent Parenting Inventory-2) and reported on child internalizing symptomatology (Child Behavior Checklist Internalizing scale), as well as children's social competence (Child Behavior Checklist Social Competence scale). During these interviews, children completed assessments of maternal parenting behaviors (Parent Perception Inventory), their own internalizing symptoms (Child Depression Inventory and State-Trait Anxiety Inventory for Children) and perceptions of peer support (Perceptions of Peer Support Scale). Given the potential inconsistencies between reporters, a multi-informant approach was adopted to provide a more comprehensive examination of constructs. However, often, this approach identifies a more complex association of behaviors.

Summary of Findings

Hypotheses for the current study were partially supported. First, a relation was expected between parent abuse risk and negative parenting with child internalizing behaviors. Second, a significant inverse relation was predicted between perceptions of peer support with child internalizing behaviors. A significant relation was also predicted between perceptions of peer support and social competence with abuse risk and negative parenting. Lastly, perceptions of peer support were predicted to buffer the relation of parent abuse risk on child internalizing behaviors. Overall, findings provide differential conclusions based on reporter.

With regard to child report, negative parenting from the child's perspective was related to child depressive symptoms but was not significantly related to anxiety symptoms, albeit the latter was in the expected direction. Further, children's perceptions of peer support were related to their report of depressive symptoms, such that higher support was related to lower depression; perceptions of peer support only trended toward significance with regard to increased child reported anxiety. In addition, children's perception of peer support was related to negative parenting, wherein, higher perceptions of peer support related to less negative parenting as reported by the child.

Alternatively, parent report of abuse risk and negative parenting attitudes were not significantly related to parent-reported child internalizing symptomatology. This raises the question of the importance of the perspective and source of information. If only parent reports were to have been used in assessing the current hypotheses, this discrepancy in responding may not have been observed. Therefore, an important

contribution from the current study is the implication for multi-informant approaches in assessing child and parenting behaviors. A significant inverse relation was observed between parents' perceptions of child social competence and child internalizing behaviors, similar to that noted in children's report. Therefore, children perceived by their mothers as more socially competent were also rated by their mothers as having fewer internalizing problems.

Furthermore, a significant interaction was not observed between perceptions of peer support and the relation between negative parenting and child internalizing problems, with either child-report or parent-report, thereby not identifying a moderating role for perceived peer support. This information is inconsistent with previous literature that has noted a potential moderating role of peers in mitigating problem behavior in the context of negative parenting (Criss, Shaw, Moilanen, Hitchings & Ingoldsby, 2009; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Lansford, Criss, Pettit, Dodge, & Bates, 2003). Although contrary to the predictions of the current study, this information is consistent with some past research (Stice, Ragan, & Randall, 2004) wherein perceptions of peer support, although related to depressive symptoms, were not related to anxiety symptoms and did not buffer the impact of negative parenting as reported by children. Therefore, these findings underscore the potential salience of positive and affirming parenting, at least from the child's perspective.

Abuse Risk, Negative Parenting, and Child Internalizing Symptomatology

The current study predicted an association between abuse risk and negative parenting with child internalizing symptomatology, such that higher abuse risk and

negative parenting would be related to increased reports of depression and anxiety in children. Negative parenting as reported by the child was significantly related to child reported internalizing symptomatology on the CDI and trended towards significance with regard to child reported anxiety on the STAIC. However, parent-reported abuse risk was not related to either children's or mothers' report of child reported internalizing, nor was it significantly related to parent report of child internalizing symptoms, although in the expected direction. These latter results are inconsistent with previous literature identifying a relation between parent reported abuse risk and child reported internalizing symptomatology (Rodriguez, 2006). However, the present sample represented substantively higher risk mother-child dyads than the larger community sample previously examined which may explain the inconsistencies in findings. Further, although these findings are contrary to the initial hypotheses, another area of research has indicated that parents are often poor reporters of child internalizing behaviors specifically due to the hidden nature of symptom presentation (Rubio-Stipec, Fitzmaurice, Murphy, & Walker, 2003; Sawyer, Baghurst, & Mathias, 1992). This literature may further account for the lack of correspondence even within reporter between parental abuse risk and parent report on child internalizing symptomatology in the current high-risk sample.

Given the child-reported association between negative parenting and internalizing, for these children, emotional wellbeing as related to depressive symptomatology may be more directly connected to negative parenting behaviors during middle childhood. These findings are consistent with research that has historically suggested that parents are the most proximal factor in shaping childhood behaviors

during middle childhood (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2007). Additionally, the high risk nature of the current sample may magnify the impact of parenting for these children on children's internalizing symptoms.

Associations with Peer Support

Similar to associations examined between other variables of interest, reports of peer support and competence primarily correlated with reports from the same rater but not across raters (i.e. parent report of child internalizing was correlated with parent reported child social competence and child reported internalizing symptomatology was related to child reported perceptions of peer support) with the exception of a cross-informant significant inverse relation between parent-reported abuse risk on the CAPI and child-reported perceptions of peer support. As predicted, higher parent reports of abuse risk were significantly related to lower reports of perceptions of peer support by the child, thereby suggesting that children from abuse risk families either truly have lower social support, or the high risk nature of the sample accounts for children perceiving less support from peers. In addition, and further confirming predicted associations between negative parenting and perceptions of peer support, child reported perceptions of peer support were significantly inversely related to child reported symptoms of depression and negative parenting on the PPI, such that higher endorsements of perceptions of peer support were related to lower reports of depression and negative parenting by the child. In contrast, child-reported anxiety symptomatology on the STAIC was not significantly related to reports of perceptions of peer support. This finding is inconsistent with previous literature identifying an inverse relation between perceptions of peer support

and anxiety (Ezzell, Swenson, & Brondino, 2000). Perhaps, unlike depression, perceiving support from peers is insufficient for reducing symptoms of anxiety. Although depression and anxiety often co-occur, the treatment focus for these disorders varies slightly and this may inform the current findings. For example, treatment for depressive symptoms often involves an increase of pleasant events and interactions with others (Young, 2005). However, treatment for anxiety is often related to exposure to the feared stimulus (Barlow, 2004). Unless the feared stimulus is social interaction, support from peers may not directly relate to anxious symptoms as it may with depressive symptoms.

With regard to the relation of parent reports of social competence with child internalizing symptomatology, as with child reports, parent-reported social competence was largely found to relate to parent-reported measures. Parents' report of children's social competence was inversely related to their report of children's internalizing symptomatology, such that high rates of social competence were associated with fewer internalizing behaviors. Children with higher social competence skills may in fact experience less emotional distress as previously noted in the literature (Swearer, Grills, Haye, & Cary, 2004). Although a significant relation was not found, parent-reported social competence did trend toward significance with regard to parent-reported negative parenting attitudes and abuse risk as reported by the parent as well as with regard to child-reported negative parenting. These findings indicate that, with greater power to detect these relationships, high social competence is potentially related to lower abuse risk and less negative parenting attitudes and beliefs. Further research with a larger high risk sample may substantiate this relation and provide increased support for this current

finding. If this relation is substantiated, this would inform interventions that provide teaching skills to improve social competence in the context of negative parenting.

Interpretation of Potential Social Support Interactions

With regard to peer support, the current study hypothesized a potential buffering role that perceptions of peer support and social competence may play in internalizing symptoms in the context of higher abuse risk and negative parenting. To examine the hypothesized buffering role, a series of analyses were conducted to examine the interaction effects. Contrary to expectations and support from previous literature, perceptions of peer support did not moderate the relation between child-reported negative parenting with child-reported depression as was suggested in earlier studies (Criss, Shaw, Moilanen, Hitchings & Ingoldsby, 2009; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Lansford, Criss, Pettit, Dodge, & Bates, 2003). One potential explanation for this discrepancy may be related to the issue of power in the current study. The pattern of findings is actually in the expected direction; however, the current sample size does not detect significance. Alternatively, the current findings are in line with another body of literature which notes that, although perceptions of peer support appear to have a direct association with childhood depression, it simply does not act as a buffer for negative parenting (Stice, Ragan, & Randall, 2004). Therefore, both peers and parents may play a significant role in childhood depression. Similarly, and as discussed above, no significant direct relation was observed between child-reported perceptions of peer support and reports of anxiety symptoms; therefore an interaction effect was also not observed. Again, with regard to anxiety, perceptions of peer support may not play an influential role

in reducing symptoms of anxiety as it may with depression; therefore, these perceptions of support may not serve as a protective factor when experiencing these symptoms. In contrast, another possible explanation may be that children with anxiety symptoms do not possess the necessary social skills to form and maintain friendships; therefore, they report less perceived peer support.

Similar analyses were conducted to assess the interaction effect of parent reported social competence with regard to parent reported child internalizing symptomatology and CAPI Abuse Scale score and the AAPI-2 Total. Again, CBCL social competence was not found to buffer the relation between parent reported abuse risk and child internalizing symptomatology on the CBCL. Despite a significant association between CBCL Social Competence and CBCL Internalizing scales, both the AAPI-2 Total and CAPI Abuse Scale scores showed no significant relation to the CBCL Internalizing scale. These findings may be related to the high-risk nature of the sample, which may be impacting a parent's ability to recognize and report on her child's internalizing behaviors. Further, and as noted above, parents are generally known to be poor reporters of children's internalizing symptomatology, which may also impact the current findings.

Sample Considerations

The nature of the current sample was representative of an extremely high abuse risk population. The mean maternal abuse risk score for the present sample was well above the clinical cutoff as indicated by the Child Abuse Potential Inventory (Milner, 1986). In addition, a number of demographic characteristics of the sample are characteristic of abuse risk in mothers, which may interfere with a parent's ability to

adequately attend to child internalizing behaviors. Specifically, lower maternal age and household income were related to high abuse risk, previously acknowledged associations in the literature (Sedlak et al., 2010). In addition, low education level was associated with poor parenting attitudes and beliefs. Lastly, ethnic minority status was observed as a significant predictor of negative parenting attitudes and beliefs. Given the high proportion of low-income households in the current sample, and the disproportionate representation of ethnic minority groups in impoverished communities, the current findings may be reflective of the high risk nature of this group. Cultural differences in beliefs about parenting may also impact the current findings. Instruments for identifying abuse risk in specific ethnic minority groups are not well identified and are still an area of research that requires expansion. However, previous findings have noted that parenting beliefs are shaped by culture (Hill & Tyson, 2008). The present sample was primarily representative of the African American culture (51.4%), which has traditionally been known to endorse physical discipline strategies in parenting (Ibanez, Borrego, Pemberton & Terao, 2006). This cultural belief system may contribute to the differences in ethnic minority group endorsements of parenting attitudes on the AAPI-2 Total.

In addition, current findings demonstrate that in families where both mothers and children were receiving mental health services, those mothers were both at a higher risk for engaging in physically abusive discipline strategies and reported the highest levels of child internalizing symptomatology. A potential explanation for this finding may be that parents are more attentive to their children's emotional well being through education and exposure through therapeutic services. However, given their own distress, as evidenced

by the enrollment in services themselves, they endorse a higher child abuse potential. So, although they may be better at recognizing symptoms of internalizing behaviors, their children remain at a higher risk for being abused given the level of personal distress experienced by these mothers (e.g., Famularo, Kinscherff, & Fenton, 1992; Pears & Capaldi, 2001). An alternative explanation for this finding may simply be that because these children are receiving mental health services, these mothers accurately recognize higher levels of problem behaviors. Note that mothers who report high levels of distress related to abuse risk may also be likely to exaggerate their children's behavior problems through bias (Daggett, O'Brien, Zanolli, & Peyton, 2000), wherein mothers are more sensitive and reactive to children's perceived problems, thereby endorsing higher levels of internalizing behaviors.

Interestingly, an inverse relation was observed between child age and child-reported negative parenting and depression. Younger children were found to report higher rates of negative parenting and depression. Again, these findings were counter to expectations, as previous literature has indicated older children are better reporters of depression given the cognitive-emotional nature of the disorder and findings that suggest children develop a more sophisticated understanding of cognitions and emotions with age (Cole, Luby, & Sullivan, 2008; Kovacs, Obrosky, & Sherrill, 2003; Weiss & Garber, 2003). An explanation for the current findings again may relate to the high-risk nature of the sample. Older children may avoid accurately reporting their emotional wellbeing and negative parenting practices for fear of potential consequences or retribution; therefore, they may underreport depressive symptoms and negative parenting. Younger children

may still be in the process of developing the cognitive mechanisms necessary to internalize negative parenting experiences, and therefore may more accurately depict their own cognitive/emotional symptoms and maternal negative parenting. An alternative explanation for the observed findings may be that as children age, they experience both more positive and negative life events. Through this experience and exposure, older children may have identified more appropriate coping mechanisms for dealing with a negative emotional state. Younger children may still be in the process of developing these skills; therefore, these negative emotional states may become magnified by inexperience.

Study Limitations

The current study can be strengthened in future research by addressing some of the existing limitations with the present study. First, the sample size of the present study was relatively lower than anticipated which limited the use of more sophisticated analyses in predicting outcome variables of interest and potentially reducing the power to detect relations. Future research should examine these hypotheses with a larger sample to both substantiate findings and improve the ability to detect associations. Additionally, the study design utilized a cross-sectional approach to examining the constructs of interest; however, future research should examine these processes in a longitudinal design. In doing so, findings can be examined beyond simple correlational associations and provide some information on potential causal relations among variables. This design will directly inform prevention and intervention strategies.

Furthermore, future research should consider incorporating other ethnicities (i.e. Asian Americans/Pacific Islanders) and increase representation from Caucasian and

Latino groups to better account for potential ethnic differences across variables. The present study also only examined maternal abuse risk and examined these processes in the context of a high-risk sample indicative of mental health issues, low maternal education, single parent status, and low annual household income. Future research should incorporate assessments of paternal abuse risk as related to child internalizing symptomatology. Due to the traditional classification of mothers as primary caregivers, fathers are often overlooked as a report source. However, very little is known about paternal abuse risk and the potential impact on child internalizing behaviors. Moreover, as noted in the present study, a multi-informant approach often provides varied information when assessing the complex phenomenon of child behaviors. By incorporating father reports of variables of interest, researchers may be afforded a more comprehensive presentation of constructs.

Further, as indicated above, the present sample identified partial support for hypotheses in the context of a higher abuse risk sample; however, research may benefit from examining the moderating role of peers in samples of different levels of risk, for example, in both a substantiated sample of children who have experienced abuse, as well as in a lower risk community sample. For example, in the context of extremely high risk, as in the current study, peers may not play a profound buffering role on child internalizing problems as children may simply be searching for positive parental support and guidance. However, children from a substantiated group who have already experienced physical abuse may greatly benefit from the support of a close peer to overcome the impact of abuse, although the effect of peers may be similarly hampered. In

contrast, children from a community sample may require both parental and peer support, wherein peers may not need to play a moderating role to offset negative internalizing outcomes given the lack of abuse risk in the home. By assessing the differences across these risk groups, one can identify the potential nuances in behavior and provide further explanations for the observed findings in the present study, as well as identify preventative approaches to addressing internalizing problems related to negative parenting.

Implications

Overall, findings from the current study suggest that child reported negative parenting may be related to childhood depressive symptoms. Further, although children perceive peers as providing support associated with symptoms of depression, peers do not appear to offset the role that parents may play. Therefore, negative parenting may have a significant role in these internalized behaviors. These findings elucidate the potential need for incorporating parent training for the prevention and treatment of child internalizing behaviors. Children may perceive parents as playing a significant role with regard to depressive symptoms; therefore, providing more universal or indicated prevention parent training sessions may significantly reduce the risk for developing internalizing symptoms in childhood.

Parents, however, seem to believe peers have a robust connection to child internalizing symptoms. These findings, are contrary to the above findings from the child's perspective, and elucidate the complexities of multi-informant reports and the difficulty in capturing an accurate presentation of constructs. Often, researchers rely on a

single-informant approach from the perspective of the parent, which fails to capture the child's perspective. Reliance on parental reports alone becomes problematic due to the concerns regarding parental biases (Seifer, 2005) and misinterpretation of children's behaviors (Kolko, 2002). With regard to the current study, single-reporter measures appeared to correlate with one another but did not correspond across reporters. This result is common and therefore, to avoid complexity, researchers often focus on a single reporter and miss valuable information (Seifer, 2005). For instance, in the present study, children viewed parenting as an important connection to emotional wellbeing, as assessed by the CDI; however, parent reported abuse risk did not significantly relate to child or parent-reported depression. These findings support the need for multi-informant assessments in future research in order to obtain a more comprehensive presentation of constructs. Lastly, future research should further assess the role that peers may play in both substantiated and community samples to further identify opportunities for preventative interventions to address childhood internalizing behaviors in the context of negative parenting, in order to expand on the extent to which peers play a role in children's well-being above and beyond the role of parents.

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APPENDIX A

TABLES

Table 1
Descriptive Statistics

	<i>M</i>	<i>SD</i>	Skewness	Kurtosis	Minimum	Maximum
CAPI Abuse Scale	236.40	121.63	-.34	-1.21	0	394
AAPI-2 Total	144.36	25.82	-.07	-1.25	98	191
PPI Total	26.27	10.44	.08	-.33	5	48
CDI	10.01	7.95	1.31	1.41	1	35
STAIC	39.13	7.79	.22	-.09	23	56
CBCL Intern	11.98	9.60	1.01	.08	0	35
CBCL Social Comp	7.35	2.69	-.27	-.87	2	12
PPSS	15.97	4.58	-.36	-.16	4	24

Note: CAPI Abuse Scale: Child Abuse Potential Inventory Abuse Scale; AAPI-2: Adult-Adolescent Parenting Inventory-2; PPI: Parent Perception Inventory; CDI: Child Depression Inventory; STAIC: State Trait Anxiety Inventory for Children; CBCL Intern: Child Behavior Checklist Internalizing Scale; CBCL Social Comp: Child Behavior Checklist Social Competence Scale; PPSS: Perceptions of Peer Social Support

Table 2
Correlations between Outcome Measures

	<i>M</i> (<i>SD</i>)	1	2	3	4	5	6	7	8
CAPI Abuse Scale	236.40 (121.63)	---							
AAPI-2 Total	144.36 (25.82)	-.34*	---						
PPI Total	26.27 (10.44)	-.09	.01	---					
CDI	10.01 (7.95)	.11	.07	.53**	---				
STAIC	39.13 (7.79)	.01	.02	.28 ^a	.52**	---			
CBCL Intern	11.98 (9.60)	.25	-.13	-.09	-.10	.12	---		
CBCL Social Comp	7.35 (2.69)	-.26	.32 ^b	-.26	.00	-.07	-.38*	---	
PPSS	15.97 (4.58)	-.32*	.13	-.34*	-.52**	-.09	-.26	.41**	---

Note: CAPI Abuse Scale: Child Abuse Potential Inventory Abuse Scale; AAPI-2: Adult-Adolescent Parenting Inventory-2; PPI: Parent Perception Inventory; CDI: Child Depression Inventory; STAIC: State Trait Anxiety Inventory for Children; CBCL Intern: Child Behavior Checklist Internalizing Scale; CBCL Social Comp: Child Behavior Checklist Social Competence Scale; PPSS: Perceptions of Peer Social Support

^a $p = .07$, ^b $p = .05$
* $p < .05$; ** $p < .01$

Table 3
Multiple Regression of CDI with PPI and Perceptions of Peer Support

CDI Results	B	β	t	Sr ²
Step 1 Demographic Controls				
Household Income	.07	.02	.10	
Mother's education level	-.78	-.16	-.79	
Mother's relationship status	-2.34	-.13	-.81	
Mother's race	-2.65	-.15	-.88	
Mother's Age	.10	.07	.46	
Child age	-.58	-.13	-.96	.18
Step 2 Main Effects				
Parenting Perception Inventory (PPI)	.30	.39	2.68*	
Perceptions of Peer Support (PPSS)	-.70	-.41	-2.46*	.28
Step 3 Interaction				
PPI X PPSS	-.03	-.15	-1.16	.02
R= .69, F(9, 34)= 3.44, $p < .01$				
R ² = .48(Adjusted R ² = .34)				

* $p < .05$

Table 4
Multiple Regression of STAIC with PPI and Perception of Peer Support

STAIC Results	B	β	t	Sr^2
Step 1 Demographic Controls				
Household Income	-.05	-.02	-.06	
Mother's education level	-1.22	-.25	-1.01	
Mother's relationship status	-3.95	-.22	-1.11	
Mother's race	-3.80	-.23	-1.03	
Mother's Age	.14	.10	.54	
Child age	-.56	-.13	-.75	.10
Step 2 Main Effects				
Parenting Perception Inventory (PPI)	.24	.32	1.77	
Perceptions of Peer Support (PPSS)	.03	.02	.08	.08
Step 3 Interaction				
PPI X PPSS		.00	.001	.00

R= .42, F(9, 34)=.83, p = n.s.

R^2 = .18(Adjusted R^2 =-.04)

Table 5
Multiple Regression of CBCL Intern scale with CAPI Abuse scale and CBCL Social Competence

CBCL Internalizing scale Results	B	β	t	Sr^2
Step 1 Demographic Controls				
Household Income	-1.33	-.39	-1.58	
Mother's education level	-1.67	-.30	-1.39	
Mother's relationship status	3.04	-.15	.91	
Mother's race	-8.75	-.44	-2.43*	
Mother's Age	.07	.04	.27	
Child age	1.77	.35	2.59**	.34
Step 2 Main Effects				
CAPI Abuse scale (CAPI)	.01	.11	.70	
CBCL Social Competence scale (CBCL_Soc)	-1.10	-.31	-2.16*	.11
Step 3 Interaction				
CAPI X CBCL_Soc	.00	.12	.85	.01
R= .68, F(9, 33)=.316, $p < .01$				
$R^2 = .46$ (Adjusted $R^2 = .32$)				

* $p < .05$; ** $p < .01$

Table 6
Multiple Regression of CBCL Intern scale with AAPI-2 and CBCL Social Competence

CBCL Internalizing scale Results	B	β	t	Sr ²
Step 1 Demographic Controls				
Household Income	-1.39	-.40	-1.71	
Mother's education level	-2.16	-.38	-1.68	
Mother's relationship status	.95	.05	.27	
Mother's race	-7.31	-.37	-2.00*	
Mother's Age	.05	.03	.20	
Child age	1.63	.32	2.42*	.34
Step 2 Main Effects				
Adult-Adolescent Parenting Inventory (AAPI-2)	.09	.25	1.22	
CBCL Social Competence scale (CBCL_Soc)	-1.55	-.43	-2.77**	.12
Step 3 Interaction				
AAPI-2 X CBCL_Soc	-.01	-.08	.01	.00
			R= .68, F(9, 33)=3.23, $p < .01$	
			R ² = .47(Adjusted R ² =.32)	
* $p < .05$, ** $p < .01$				

Table 7
Multiple Regression of CDI with CAPI Abuse Scale and PPSS

CDI Results	B	β	t	Sr ²
Step 1 Demographic Controls				
Household Income	.31	.10	.38	
Mother's education level	-.77	-.16	-.70	
Mother's relationship status	-1.97	-.11	-.61	
Mother's race	-2.22	-.13	-.66	
Mother's Age	-.01	-.01	-.03	
Child age	-1.06	-.24	-1.62	.18
Step 2 Main Effects				
Child Abuse Potential Inventory (CAPI)	-.92	-.12	-.74	
Perceptions of Peer Support (PPSS)	-.01	-.53	-2.95**	.17
Step 3 Interaction				
CAPI X PPSS	.00	.05	.33	.00
R= .59, F(9, 34)= 2.00, $p > .05$				
R ² = .35(Adjusted R ² =.17)				

** $p < .01$

Table 8
Multiple Regression of STAIC with CAPI Abuse Scale and PPSS

STAIC Results	B	β	t	Sr ²
Step 1 Demographic Controls				
Household Income	.06	.02	.07	
Mother's education level	-1.02	-.21	-.84	
Mother's relationship status	-3.18	-.18	-.89	
Mother's race	-3.80	-.23	-1.02	
Mother's Age	-.05	-.04	-.19	
Child age	-.89	-.21	-1.24	.10
Step 2 Main Effects				
Child Abuse Potential Inventory (CAPI)	-.01	-.18	-.94	
Perceptions of Peer Support (PPSS)	-.24	-.14	-.67	.02
Step 3 Interaction				
CAPI X PPSS	.00	.25	1.49	.05
R= .42, F(9, 34)=.79, p= ns				
R ² = .17 (Adjusted R ² = -.05)				

Table 9
Multiple Regression of CDI with AAPI-2 and PPSS

CDI Results	B	β	t	Sr ²
Step 1 Demographic Controls				
Household Income	.38	.13	.49	
Mother's education level	-1.19	-.24	-.92	
Mother's relationship status	-2.51	-.14	-.78	
Mother's race	-.71	-.04	-.21	
Mother's Age	.03	.02	.10	
Child age	-1.06	-.24	-1.45	.18
Step 2 Main Effects				
Adult-Adolescent Parenting Inventory (AAPI-2)	.07	.21	1.09	
Perceptions of Peer Support (PPSS)	-.84	-.49	-2.68**	.18
Step 3 Interaction				
AAPI-2 X PPSS	.00	-.00	-.01	.00
R= .60, F(9, 34)=2.11, $p > .05$				
R ² = .36 (Adjusted R ² = .19)				

** $p < .01$

Table 10
Multiple Regression of STAIC with AAPI-2 and PPSS

STAIC Results	B	β	t	Sr ²
Step 1 Demographic Controls				
Household Income	.12	.04	.14	
Mother's education level	-.88	-.18	-.60	
Mother's relationship status	-4.00	-.23	-1.09	
Mother's race	-2.32	-.14	-.60	
Mother's Age	.14	.10	.49	
Child age	-.65	-.15	-.77	.10
Step 2 Main Effects				
Adult-Adolescent Parenting Inventory (AAPI-2)	.04	.12	.54	
Perceptions of Peer Support (PPSS)	-.18	-.11	-.52	.01
Step 3 Interaction				
AAPI-2 X PPSS	-.01	-.18	-.78	.02
R= .36, F(9, 34)=.58, p= n.s.				
R ² = .13 (Adjusted R ² = -.10)				