Positive communication moderates the relationship between corporal punishment and child depressive symptoms

Amber R. Wimsatt, Paula J. Fite, Stevie N. Grassetti & Jamie L. Rathert

1University of Tennessee, Department of Psychology, Austin Peay Building, Knoxville, TN, 37996, USA. E-mail: awimsatt@utk.edu
2University of Kansas, Lawrence, Kansas, USA
3University of Delaware, Newark, Delaware, USA

Background: Findings are few and mixed regarding the moderating influence that supportive parenting might have on the link between corporal punishment and child depressive symptoms. Method: A multiple regression model was estimated to examine proposed relationships in a 1-year longitudinal community-recruited sample of 89 children (56% male; 9–12 years). Results: High levels of corporal punishment in tandem with high levels of supportive communication were associated with the highest levels of depressive symptoms. Conclusions: Although supportive parenting behaviors have been shown to be beneficial for child outcomes, when considering a stress-process framework, simultaneous experiences of harsh and positive parenting may yield more negative outcomes.

Key Practitioner Message:
- Corporal punishment has been consistently linked to child internalizing symptoms
- However, few studies have examined whether supportive parenting might moderate the relationship between corporal punishment and child depressive symptoms. Furthermore, findings are mixed among those that have explored these relationships
- According to a stress-process framework, whereby consistency of messages is associated with the most positive outcomes, the simultaneous experience of both support (communication) and stress (physical punishment) from the same caregiver might actually be more harmful to children
- Indeed, it appears that instead of buffering against depressive symptoms, competing messages from a child’s caregiver are associated with the highest levels of symptoms
- Interventions should target the parent–child relationship and delineate the importance of consistency

Keywords: Communication; parent–child interaction; parenting; depression

Introduction

Because children experiencing depressive symptoms are at increased risk for a number of negative outcomes, including social and academic problems, the conjunctive experience of other internalizing (e.g. anxiety) and externalizing symptoms (e.g. substance use, risky behavior; see Garber & Herowitz, 2002; Hammen & Rudolph, 2003), both clinicians and researchers are interested in identifying factors that influence child depressive symptoms. Toward this end, parenting behaviors have received consistent attention in the literature, as parenting behaviors are related to a host of child outcomes (e.g. Barber & Harmon, 2002; Gershoff, 2002; Turner, 2005). In general, findings indicate that unsupportive parenting behaviors (i.e. control, rejection, harsh/physical and inconsistent discipline) are associated with increased circumstances of child internalizing and externalizing behavior (Gershoff, 2002; Harper, Brown, Arias & Brody, 2006; Kilgore, Snyder & Lentz, 2000), whereas supportive parenting behaviors (i.e. warmth and involvement, consistent discipline, and positive communication) have been identified as protective factors against such negative outcomes (Bayer, Sanson & Hemphill, 2006). However, few studies have specifically investigated the ways in which supportive parenting behaviors may moderate the link between corporal punishment and child depressive symptoms. Moreover, findings are mixed among those few studies that have explored these relationships (Dallaire et al., 2006; Harper et al., 2006; Rohner, Kean & Cournoyer, 1991; Turner & Finkelhor, 1996). Because interventions addressing children’s internalizing symptoms often involve parents and the development and management of healthy parent–child interactions within their paradigms (e.g. Lynemah & Raepe, 2006; Racsuis & Kaslow, 1991), understanding the ways in which parenting behaviors interact to influence child behavior has critical treatment and prevention implications. Furthermore, taking into account the potential moderators of behavior
is essential for formulating the most accurate models of the developmental pathways associated with particular child outcomes (Eddy, Dishion & Stoolmiller, 1998). Thus, the current study sought to clarify and extend the current literature by examining whether positive communication, a supportive parenting behavior, moderated the association between corporal punishment and child depressive symptoms.

Corporal punishment and child depressive symptoms
Corporal punishment, or the use of physical contact intended to immediately curtail problem behavior by causing pain but not injury (Straus, 1994), has been repeatedly linked to negative child emotional and behavioral outcomes (See: Gershoff, 2002). Despite this relationship, corporal punishment continues to be a discipline strategy employed by a number of American parents in response to child behavior (Greven, 1991; Straus & Stewart, 1999), and thus has received a great deal of investigative attention throughout the years. By virtue of its nature and to be effective in achieving immediate compliance, corporal punishment must cause a certain level of distress in the child (Hoffman, 1983), and thus there are unintended consequences such as modeling aggressive modes of response (McCord, 2005), lingering feelings of distress and the potential development of depressive symptoms (Aucoin, Frick & Bodin, 2006). Indeed, children may experience harsh physical punishment as a form of caregiver rejection and thus, may be more likely to internalize (Rohner, Bourque & Elordi, 1996). Despite this link, however, few have examined factors that might moderate this association. There are environmental factors, such as variations in supportive parenting behavior, which might place children at increased (or diminished) risk for encountering negative experiences and outcomes associated with corporal punishment (Turner, 2005).

The role of supportive parenting and the implications of inconsistency
Supportive parenting encompasses a wide range of behaviors ranging from strong and positive warmth and involvement to age-appropriate monitoring. The extent to which parents engage in constructive and positive communication with their children is arguably an integral component of a supportive parent-child relationship (Infante, 2005). Although supportive behaviors, such as communication, have been found to buffer child experience of negative outcomes (Bayer et al., 2006), this may not be the case when considering competing behaviors rendered from the same source (Turner & Finkelhor, 1996).

Although it is possible that when experienced in the context of a positive and supportive relationship, the potentially deleterious effects of corporal punishment may be lessened, there is also the issue of inconsistencies in parenting and caregiver messages. That is, the receipt of simultaneous and competing messages from the same caregiver may actually increase the extent to which children are at risk for harmful outcomes. Although caregivers may have an opportunity to communicate their rationale for discipline (i.e. child safety) to the child and establish boundaries to avoid future misbehavior, the child’s experience with their caregiver is not limited to this positive communication, as corporal punishment is a method of negative physical communication (Infante, 2005), and is thus inconsistent. Indeed, the literature shows that children fare better with consistency and when they are best able to predict their environments and interactions (e.g. Wyman et al., 1992). Consistent discipline and parental support have been numerously linked to positive adjustment (Bayer et al., 2006; Pettit, Bates & Dodge, 1997; Wyman et al., 1992), and thus it follows that children may become especially distressed when their caregiver engages in high levels of both corporal punishment and supportive communication. For instance, a child may experience conflicting and distressing feelings when they experience corporal punishment as a form of rejection from the caregiver with whom they feel they have a positive relationship (Rohner et al., 1996), resulting in depressive symptoms.

Turner (2005) and her colleague (1996) have outlined a stress-process framework by which competing parenting behaviors are posited to be linked to negative child outcomes. This model suggests that because a child might experience his/her caregiver as both a source of stress and support, he/she might be more prone to experience distress and confusion due to perceived inconsistency of caregiver behavior (Turner, 2005). Although they found support for their framework in their study assessing the interactive effects of parental support and corporal punishment on psychological distress (Turner & Finkelhor, 1996), this study suffered from a methodological issue of potential shared method variance, thus introducing the need for further examination. Specifically, children were used as the sole informants for all constructs of interest. Although children are suitable reporters of their subjective experience of depressive symptoms (Kovacs, 1983), it is possible that such symptoms influence child perception of other parenting variables. For instance, children experiencing symptoms of depression have been shown to perceive the same caregivers as more harsh, punitive, and angry than their nondepressed counterparts (Dadds, Sanders, Morrison & Rebgzet, 1992). In addition, the above findings only held true for child psychological distress, a broad measure of adjustment difficulties (i.e. ‘felt alone’ or ‘felt bad about school’), rather than child depressive symptoms. Likewise, parental support encompassed a broad range of parenting behavior (i.e. ‘Do you and you parents have fun together’), making it difficult to examine the associations of more specific mechanisms of supportive behavior. Thus, the current study is able to extend their examination, by considering parent-child communication and child depressive symptoms once more.

Furthermore, only a handful of studies have examined associations similar to those proposed in the current study, and findings have been inconsistent (Dallaire et al., 2006; Harper et al., 2006; Rohner et al., 1991; Turner & Finkelhor, 1996). For example, Rohner and colleagues (1991) found that children were less likely to experience psychological distress in response to corporal punishment when they perceived support, defined as perceived warmth and acceptance from their caregiver. However, these findings were couched within a cultural context that supported physical punishment as a form of caring, and thus might not generalize to all children (Rohner et al., 1991). Finally, although Harper and colleagues (2006) found that maternal supportive parent-
ing (defined as child perception of parental love and understanding) was associated with higher levels of disciplinary behaviors when children were simultaneously experiencing high levels of paternal corporal punishment, this study did not consider the influence that experience of such behaviors from the same parent might have on children. When considering the important implications of understanding parenting practices that might put children at risk for negative outcomes, clarifying these findings is an important undertaking.

**The current study**

In sum, the goal of the current study was to extend the literature by using separate informant data to examine whether parental communication moderates the link between corporal punishment and child depressive symptoms. Consistent with the stress process framework that children experiencing both harsh and supportive parenting from the same source may become further distressed by perceived inconsistency, it was hypothesized that high levels of both corporal punishment and positive communication would be associated with high levels of child depressive symptoms. Furthermore, it was expected that low levels of corporal punishment in combination with high levels of positive communication would be associated with the lowest levels of child depressive symptoms.

**Method**

**Participants**

Participants were comprised of a community-recruited sample of 89 children (56%) male ranging from 9 to 12 (M = 10.44, SD = 1.14) years of age. Participants were recruited through flyers and advertisement posted in various locations throughout the community (e.g. sporting events, physician’s offices, local eateries, etc.). Caregivers interested in participation contacted study staff and completed a telephone screen to ensure that their children were in the appropriate age range and that participating family members did not meet criteria for exclusion (i.e. the presence of developmental delays or other learning disabilities, medication that might impact the child’s reaction time, and/or non-English speaking families). Of the 94 families who expressed interest and met inclusion criteria, five families chose not to participate in the study. Our sample was demographically similar to the mid-sized Southeastern community from which it was drawn such that the majority of children (74%) self-identified as Caucasian, 20.5% as African American, and 5.5% as bi-racial or other racial group. Likewise, median family income was $50,000 ($5,600 to $240,000) and approximately 27% of participants’ families were receiving public assistance. Finally, the majority of caregiver respondents were mothers (85%); however, other caregivers with legal and primary custody of children were allowed to participate (e.g. fathers, grandparents, etc.).

**Procedures**

The Institutional Review Board for the University of Tennessee examined and provided written permission for all study procedures and questionnaires prior to participant recruitment and subsequent data collection. Children and caregivers gave written assent and consent, respectively, to participate in a study examining how factors such as family, friends, school and other individual level characteristics are associated with childhood aggression. Children and their primary caregivers were invited to the laboratory and interviewed simultaneously in separate laboratory rooms, to best ensure confidentiality of responding for both the child and caregiver. Furthermore, all study staff were trained in procedures for reporting child abuse-related issues. However, no such issues were reported by family members or were observed by study staff during the data collection process. The interviews entailed caregiver and child response to a series of questionnaires, which were read aloud by trained study staff that entered the respondent’s answers into a computer using MediaLab. Participants were instructed to be as honest as possible and reassured of confidentiality by the study staff. The entire process lasted approximately one and a half hours. Families were compensated $45 and children received a small prize for study participation.

**Measures**

**Child depressive symptoms.** Child experience of depressive symptoms was assessed using child report on the Child Depression Inventory (CDI; Kovacs, 1983). The CDI is a 27-item self-report inventory that requires children to select one of three response options (e.g. "I am sad some times, or I am sad all the time"). This measure has been found to be a good indicator of self-reported distress and as a good screening measure for childhood depression (Kovacs, 1992; Nurcombe et al., 1989). Internal consistency in the current sample was good (α = .86).

**Corporal punishment.** Corporal Punishment was assessed using caregiver reports of the corporal punishment subscale of the Alabama Parenting Questionnaire (Shelton, Frick & Wotton, 1996). All caregivers in the current sample responded to three items (e.g. "You slap your child when s/he has done something wrong") using a 5-point scale (1 = never, to 5 = almost always). Scores in the current sample ranged from 1 to 3, with no parents reporting that they almost always engage in corporal punishment. This measure has been empirically validated using multi-informant (parent, teacher, and child report) parenting practices in a both a clinically referred and community-based matched sample of children (Shelton et al., 1996). Internal consistency in the current sample was adequate (α = .71).

**Parent–child communication.** Parent–child communication was assessed using 18 items from the Pittsburgh Youth Study Questionnaire (PYSQ; Loeber et al., 2000). Caregivers responded to items such as "When talking with your child, do you have a tendency to say things that would be better left unsaid?" using a 5-point scale (1 = never, to 5 = always). Items were coded such that higher scores indicated poorer parent–child communication, thus yielding a continuous measure of communication. Scores in the current sample ranged from 1.22 to 5.66. Extensive information regarding the sound psychometric properties of this empirically validated measure, which has been used in numerous previous studies (e.g. Pardini, Fite & Burke, 2008), is reported elsewhere (Loeber et al., 2000). Internal consistency in the current sample was adequate (α = .73).

**Results**

Correlations and multiple regression models were estimated using SAS statistical software (SAS Institute Inc., Cary, NC, USA) to examine the proposed relationships among corporal punishment, parent–child communication and child depressive symptoms. Participant race was dichotomized to be representative of minority (26%) and majority (74%) status. Race, age, and gender were each initially considered as covariates in estimated models. However, age and gender were unrelated to other variables, and thus were excluded from subsequent analyses to reduce the number of parameters estimated in the model. All variables were standardized (M = 0, SD = 1).
SD = 1) to aid in the interpretation of interactions. Consistent with standard procedure, significant interactions were probed at high (+1 SD) and low (−1 SD) levels of communication to understand the nature of the interaction (Aiken & West, 1991).

Correlations, means, and standard deviations of observed study variables are shown in Table 1. Pearson correlations indicated that high levels of corporal punishment and low levels of positive communication were associated with high levels of child depressive symptoms. Additionally, high levels of corporal punishment were related to low levels of positive communication. Phi correlations indicated that race was associated with depressive symptoms, corporal punishment, and positive communication, such that minority youth were associated with higher levels of depressive symptoms and corporal punishment and lower levels of positive communication than Caucasian youth.

A multiple regression model in which child depressive symptoms were regressed on corporal punishment, parent–child communication, race, and the interaction between corporal punishment and parent–child communication was estimated (See Table 2), and a significant interaction was found. At high levels of positive parent–child communication, corporal punishment was positively associated with child depressive symptoms (β = .52, p = .007). In contrast, corporal punishment was unrelated to child depressive symptoms at low levels of positive parent–child communication (β = −.02, p = .91).

As seen in Figure 1, the highest levels of depression occurred at high levels of both positive communication and corporal punishment. In contrast, the lowest levels of depressive symptoms occurred at low levels of corporal punishment in combination with high levels of positive communication. Note also that at low levels of positive communication, levels of depression were high regardless of the level of corporal punishment. A three-way interaction between race, communication, and corporal punishment was also estimated due to some evidence suggesting differential parenting effects according to race (Amato & Fowler, 2002; Kilgore et al., 2000); no relationship was evident (p > .40). However, this association should be examined in a larger, more racially diverse sample before null findings are concluded.

Table 2. Interactive effects of corporal punishment and parent-child communication on child depressive symptoms

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporal punishment</td>
<td>0.25*</td>
<td>.12</td>
</tr>
<tr>
<td>Parent-child communication</td>
<td>0.16</td>
<td>.11</td>
</tr>
<tr>
<td>Corporal Punishment × Communication</td>
<td>−.27*</td>
<td>.11</td>
</tr>
<tr>
<td>Race</td>
<td>0.38</td>
<td>.25</td>
</tr>
</tbody>
</table>

*p < .05.

Finally, note that while the skewness of corporal punishment and parent–child communication was less than 1 (0.82 and 0.11, respectively), skewness of child depressive symptoms was 1.53. Accordingly, models were estimated using a log-transformed variable of depressive symptoms; however, findings remained the same as when the original variable was used.

Discussion

The current study examined the potential interactive effects between corporal punishment and the supportive parenting behavior of communication on child depressive symptoms. As expected, high levels of supportive parenting and low levels of corporal punishment were associated with the lowest levels of depressive symptoms in children. Likewise, when considering the implications of lack of consistency and competing messages, corporal punishment was most strongly associated with internalizing symptoms when communication was favorable. In contrast, corporal punishment did not exert influence on depressive symptoms for children experiencing low levels of positive communication. Consistent with previous literature (Chiariello & Orvaschel, 1995), depressive symptoms were uniformly high in children experiencing low levels of positive parent–child communication, and this association was not dependent on levels of corporal punishment.

Overall, these findings add support for the stress process model and are consistent with prior research that found that children were at increased risk for experiencing symptoms of psychological distress when corporal punishment and supportive parenting were both high.

Table 1. Correlations, means, standard deviations of observed study variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>C-Depress</th>
<th>Corp Pun</th>
<th>P-C Comm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>−.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender</td>
<td></td>
<td>−.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Race</td>
<td></td>
<td></td>
<td>−.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. C-Depress</td>
<td></td>
<td></td>
<td></td>
<td>−.07</td>
<td>.29*</td>
<td></td>
</tr>
<tr>
<td>5. Corp Pun</td>
<td></td>
<td></td>
<td></td>
<td>−.11</td>
<td>−.01</td>
<td>.46*</td>
</tr>
<tr>
<td>6. P-C Comm</td>
<td></td>
<td>−.07</td>
<td>−.06</td>
<td>−.01</td>
<td>.32*</td>
<td>.30*</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>−</td>
<td></td>
<td>1.26</td>
<td>.20</td>
<td>1.56</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td></td>
<td>−</td>
<td></td>
<td>.44</td>
<td>.19</td>
<td>.61</td>
</tr>
</tbody>
</table>

C-Depress, Child Depressive Symptoms; Corp Pun, Corporal Punishment; P-C Comm, Parent–Child Communication.

High parental communication values indicate low levels of positive communication.

Gender: 1 = Male; 2 = Female; Race: 1 = Caucasian; 2 = Minority. *p < 0.01.
biases when parents are reporting minor forms of physical punishment (Rudolph & Lambert, 2006). It is possible that social desirability may have affected parent reports of corporal punishment (e.g. Dallaire et al., 2006; Harper et al., 2006). Finally, community-recruited samples have found similar correlations between measures of parental support in large community samples. How- ever, previous investigations examining harsh discipline and the positive parent-child communication otherwise, may be working in tandem to produce increased negative outcomes. Additional investigations are needed to understand how caregiver behaviors interact to yield treatment gains for depressed children, and findings from the current study are a preliminary step in answering this question. Given this new information, it is possible that age-appropriate day-to-day discipline strategies (e.g. limit setting, monitoring, etc.) simultaneously employed with positive styles of communicating with children may be helpful in the prevention of child depressive symptoms. Furthermore, encouraging parents who engage in supportive parenting behaviors such as communication with their children to consider altering their approaches to discipline in favor of strategies that are less harsh and competing may also be beneficial for child outcomes.

Current findings should be interpreted in light of the study’s limitations. First, the current study was cross-sectional and correlational in design and thus causation cannot be assumed. Future studies should examine whether these relationships are similar over time. Additionally, the current sample size was relatively small and homogeneous with regard to race, and thus future studies should examine relationships in a larger more ethnically diverse sample. Furthermore, using a community-recruited rather than clinical sample may have attenuated the extent to which depressive symptoms were present in the current sample (14% of children). However, it might be argued that findings from this community sample are especially important from a prevention standpoint, as they allow for a better understanding and forecasting of factors that might be associated with future development of clinical levels of depressive symptoms. Nevertheless, future studies should examine these relationships in a clinical sample. Furthermore, the high correlation between positive communication and corporal punishment may raise concerns about self-selection of community participants in the current sample. However, previous investigations examining harsh discipline, corporal punishment, and broad and sweeping measures of parental support in large community-recruited samples have found similar correlations (e.g. Dallaire et al., 2006; Harper et al., 2006). Finally, as with many self-report measures of behavior, it is possible that social desirability may have affected parent report of corporal punishment (Rudolph & Lambert, 2007). Although there is evidence to suggest that parent report may be less susceptible to social desirability biases when parents are reporting minor forms of physical punishment (e.g. spanking on the bottom) such as those assessed in the current study (e.g. Straus, Hamby, Finkelhor & Moore, 1998) and current findings were consistent with expectation, it would be useful for subsequent examinations to incorporate the use of observational as well as child perception measures of parenting behavior (e.g. Holden, Coleman & Schmidt, 1995; Larzelere & Merenda, 1994).

Additionally, the current study examined variables of interest among 9- to 12-year olds. During middle childhood, children’s social cognitive skills continue to develop as they begin to adopt the perspective of others, enabling them to speculate about reasons for others’ behavior (Crick & Dodge, 1994; Dunn & Slomkowski, 1992). Future research should examine variables of interest in younger children whose cognitive abilities have not matured to determine if, without the cognitive capacity to infer reason for behavior, the variables of interest influence younger children in the same way. Likewise, similar studies should be conducted with older children with more fully developed social cognitive skills. Future investigations might also consider whether other parenting variables, such as parental depression and other forms of psychopathology, may influence the current relationships. For instance, meta-analyses have found consistent links between maternal depression and higher levels of engagement in negative parenting practices and lower levels of positive dimensions of parenting in general (Lovejoy, Graczyk, O’Hare & Neuman, 2000). Finally, future research should identify protective factors, such as social peer relationships, that might provide a buffer against inconsistent parenting practices. This may be a particularly important future direction, as friendships have been shown to be protective against internalizing symptoms (Hodges, Boivin, Vitaro & Bukowski, 1999).

Acknowledgements

Data for the current study were supported by funds furnished to the second author by the University of Tennessee. The authors have declared that they have no competing or potential conflicts of interest. Finally, the authors extend special thanks to the University of Tennessee Child Behavior laboratory and all individuals involved in the collection of study data.

References


Kilgore, K., Snyder, J., & Lentz, C. (2000). The contribution of


Hodges, E.V.E., Boivin, M., Vitaro, F., & Bukowski, W.M. (1999). The power of friendship: Protecting against an esca-


Hamen, C., & Rudolph, K.D. (2003). Childhood mood disor-


Hodges, E.V.E., Boivin, M., Vitaro, F., & Bukowski, W.M. (1999). the power of friendship: Protecting against an esca-


Racusin, G.R., & Kaslow, N.J. (1991). Assessment and treat-


Shelton, K.K., Frick, P.J., & Wooton, J. (1996). Assessment of parenting practices in families of elementary school-age chil-


Straus, M.A. (1994). Beating the devil out of them: Corporal punish-


Accepted for publication: 25 July 2012

© 2012 The Authors. Child and Adolescent Mental Health © 2012 Association for Child and Adolescent Mental Health.