

## The Intergenerational Transmission of Physical Punishment: Differing Mechanisms in Mothers' and Fathers' Endorsement?

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Published online: 30 November 2006  
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**Abstract** We examined the intergenerational transmission of physical punishment (PP) and whether marital satisfaction moderated this transmission. Participants were 241 mothers and 107 fathers with a three year-old child who completed a semi-structured interview assessing their endorsement of disciplinary methods and the methods their parents used to discipline them. Marital satisfaction was assessed using the Conflicts and Problem Solving Scales. Different predictive models were obtained for mothers and fathers. For mothers, socioeconomic status (SES) and their own mother's use of PP significantly predicted their current endorsement of PP. For fathers, SES and perceived harshness of childhood discipline predicted current endorsement of PP. Marital satisfaction moderated the intergenerational transmission of PP for fathers, but not mothers. Results indicated that PP by the same-sex parent and SES are important factors in its intergenerational transmission, and that the effects of childhood PP on current endorsement may be more direct for mothers and indirect for fathers.

**Keywords** Physical punishment · Intergenerational · Marriage · Fathers · Mothers

### Marital satisfaction and the intergenerational transmission of physical punishment

Although physical maltreatment severe enough to meet the criteria of abuse is estimated to occur in 5% of American families (Kaufman & Zigler, 1989), use of some form of physical punishment as a discipline technique is far more

common (Giles-Sims, Straus, & Sugarman, 1995; Straus & Stewart, 1999). According to Straus and Stewart (1999), 58% of fathers and 64% of mothers endorse use of physical punishment as a disciplinary technique. Physical punishment involves use of behaviors such as slapping with bare hands, hitting with an object, and throwing, shaking, and/or hair pulling in order to discipline a child. However common, research indicates that such behaviors may carry detrimental short- and long-term consequences for the child. Exposure to physical punishment has been linked to increased aggression towards siblings and peers in childhood (Strassberg, Dodge, Pettit, & Bates, 1994; Straus, 1983), increased psychological distress in adolescence and young adulthood (Bryan & Freed, 1982; Turner & Finkelhor, 1996), and greater chance of spousal and child abuse in the adult child's family of procreation (Straus, 1983).

One potential contributor to parents' use of physical punishment is their exposure to harsh physical discipline in their own family of origin. Men and women who were physically punished as children have been shown to be more likely to espouse and practice these methods in their own parenting (Cappell & Heiner, 1990; Muller, Hunter, & Stollak, 1995; Simons, Whitbeck, Conger, & Chyi-In, 1991; Stattin, Janson, Klackenberg-Larsson, & Magnusson, 1995). Research has demonstrated continuity in angry, aggressive parenting (Conger, Neppl, Kim, & Scaramella, 2003; Smith & Farrington, 2004), as well as constructive parenting (Chen & Kaplan, 2001), with evidence for both direct and indirect pathways in the transfer of parenting styles across generations. However, in the case of physical punishment, the specific mechanisms of intergenerational transmission are uncertain, considering that the majority of work regarding such mechanisms has addressed child abuse as opposed to physical punishment (Belsky, 1993; Holden & Zambarano, 1992; Kaufman & Zigler, 1989; Pianta, Egeland,

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& Erickson, 1989; Putallaz, Costanzo, Grimes, & Sherman, 1998; Simons & Johnson, 1996; van Ijzendoorn, 1992). Additionally, we do not know whether the intergenerational transmission of physical punishment operates similarly for both mothers and fathers, as most studies have found stronger effects for mothers than fathers or effects for mothers only (e.g., Cappell & Heiner, 1990; Simons et al., 1991). Therefore, further research is needed to test potential mediating or moderating factors in this transmission, as well as to determine whether these factors impact mothers and fathers differently.

#### Intergenerational transmission of physical punishment

Transmission of actual physical punishment practices across generations has been examined by looking at relationships between mothers' and fathers' current behaviors and their retrospective accounts of how they were disciplined in childhood. Consistent evidence has been found for the intergenerational transmission of physical punishment based on social learning models, even after controlling for alternative explanatory models (e.g., hostile personality, child temperament; Muller et al., 1995; Simons et al., 1991). However, different patterns of associations have been reported for mothers and fathers. For example, Simons and colleagues (Simons et al., 1991) found that exposure to maternal "harsh" discipline in childhood (defined as both yelling and physical discipline) predicted mothers' current use of harsh discipline with sons and daughters and fathers' use of harsh discipline with sons, whereas fathers' harsh parenting of daughters was predicted by their own exposure to paternal harsh parenting. Muller and colleagues (Muller et al., 1995) also found that both mothers' and fathers' use of physical punishment, as reported by parents and their college-aged children, was predicted by their own exposure to physical punishment in childhood. However, in both studies, the direct effect of harsh, physical discipline on current punishment practices was stronger for mothers than for fathers.

Other research has revealed that exposure to physical discipline during childhood predicted current use of such practices for mothers, but not for fathers. For example, Cappell and Heiner (1990) found that mothers who reported being hit by their own parents demonstrated greater aggression in disciplining their children, but these associations were not found for fathers. Similarly, Stattin and colleagues (1995) found that a history of being hit during childhood predicted mothers' use of physical punishment with their children, but that fathers' use of physical punishment was better predicted by their wives' childhood histories than by their own, indicating that fathers may sometimes act as vicarious discipline agents for their wives. In light of these mixed findings, we examined whether the effects of childhood punishment were in fact stronger for mothers than for fathers, and

whether an alternative model offered greater explanation in the case of fathers' intergenerational transmission of physical punishment.

#### Marital satisfaction as a moderating factor

Many, if not most, parents who were subject to abusive or physically punitive parenting in childhood do not repeat these patterns with their own children (Kaufman & Zigler, 1988). Consistent with attachment theory, one factor that has been found to moderate the transmission of abusive parenting and other non-optimal parenting practices is a satisfying marital relationship (Belsky, Pensky, & Youngblade, 1989; Caspi & Elder, 1988; Crockenberg, 1987; Egeland, Jacobvitz, & Sroufe, 1988; Pianta et al., 1989; Rutter, Quinton, & Hill, 1990). Attachment theorists explain the discontinuity of harsh parenting practices across generations by arguing that parents' internal working models may be modified by corrective experiences in childhood or adulthood (Bowlby, 1988). Repetition of harsh parenting across generations is less likely to occur if adults have "worked through" their negative childhood experiences, or if they have had corrective experiences in close, supportive relationships such as the marital relationship (van Ijzendoorn, 1992; Zeanah & Zeanah, 1989).

Research seems to support such a hypothesis. In a study of high-risk mothers, Egeland and colleagues found a supportive relationship with spouse or partner to be one of the key factors differentiating abused mothers who did not repeat the cycle of abuse from those who did (Egeland, 1988; Egeland et al., 1988, 1987; Pianta et al., 1989). Numerous other researchers have cited marital satisfaction as a key factor in determining whether abusive practices will be continued from one generation to the next (Belsky, 1993; Kaufman & Zigler, 1989; Langeland & Dijkstra, 1995; Putallaz et al., 1998; Rutter, 1989; Simons & Johnson, 1996; Zeanah & Zeanah, 1989). In addition to moderating the cycle of abuse, marital satisfaction has also been shown to moderate the intergenerational transmission of maternal rejection (Belsky et al., 1989), maternal anger and punitive control (Crockenberg, 1987), "ill-tempered" parenting (Caspi & Elder, 1988), and poor parenting among institution-reared mothers and fathers (Rutter et al., 1990).

Based on these findings, marital satisfaction shows promise as a mechanism at work in the intergenerational transmission of parenting behaviors. However, there has been little exploration to date of the role of marital satisfaction in the transmission of physical punishment that does not qualify as abuse. Theorists have claimed that physical abuse may be viewed as falling at the severe end of a continuum of physical punishment practices, as the general correlates of abusive parenting practices and physical punishment are thought to be similar (e.g., Straus, 1983). Under this assumption, it is

reasonable to propose that factors that have been found to moderate the intergenerational transmission of abuse may moderate the transmission of physical punishment as well.

#### Fathers' marital satisfaction

The majority of research investigating marital satisfaction as a moderator of the transmission of physically abusive or punitive practices has focused on mothers, and the role of a supportive relationship in the perpetuation of such practices by fathers is unclear (Belsky, 1993). However, there is ample evidence that marital quality affects fathers' parenting in general, perhaps to an even greater degree than it affects that of mothers (Gable, Belsky, & Crnic, 1992). High levels of marital satisfaction have been associated with fathers' positive attitudes towards their infants and towards parenthood in general (Cox, Owen, Lewis, & Henderson, 1989), positive father-child interactions during the child's first three years of life (Belsky, Youngblade, Rovine, & Volling, 1991), and greater paternal support during a child's adolescence (Barber, 1987). Furthermore, these last two relationships were stronger for fathers than for mothers (Belsky et al., 1991; Barber, 1987). Additionally, marital conflict has been shown to be more predictive of fathers' use of physical punishment than that of mothers (Kanoy, Ulku-Steiner, Cox, & Burchinal, 2003). These findings highlight the potentially powerful effects of marital satisfaction on fathering, and suggest that levels of marital satisfaction may play an important role in the intergenerational transmission of paternal abuse and physical punishment.

#### The current study

We sought to address gaps in previous research by examining intergenerational patterns in the transmission of physical punishment for both mothers and fathers, and by examining the effect each parent's level of marital satisfaction may have on these patterns. In the current study, home interviews were conducted with both mothers and fathers of three year-old children participating in a larger research study. We asked each parent to report whether their parents used a number of physical punishment techniques, and asked parents about scenarios in which they would currently use physical punishment with their own children. Parents were asked to describe their mothers' and fathers' discipline methods separately, as previous research has indicated that patterns of intergenerational transmission may differ depending upon whether individuals were exposed to maternal or paternal physical punishment (Murphy-Cowan & Stringer, 1999; Simons et al., 1991). Parents were also asked to rate the overall harshness of the discipline they experienced in childhood, as at least one previous study has indicated that the discipline-related attitudes of individuals exposed to severe physical

punishment may vary depending upon whether they considered this punishment to be abusive (Bower-Russa et al., 2001). Finally, parents completed a questionnaire assessing their current levels of marital satisfaction. Considering that previous researchers have found that use of physical discipline varies as a function of SES (e.g., Giles-Sims et al., 1995; Straus & Stewart, 1999), we controlled for SES in the current study.

According to social learning theory, parents who model the use of physical punishment as a discipline technique should be more likely to have children who utilize physical punishment when they themselves become parents (Muller et al., 1995; Simons et al., 1991). According to attachment theory, marital satisfaction may have a corrective effect on a parent who has experienced abusive parenting in childhood, thus preventing the continuation of this cycle of violence (e.g., Belsky et al., 1989). As there is not yet sufficient evidence to claim that such theories would have differential effects on women as compared to men, our hypotheses were as follows: a) Both mothers and fathers who reported exposure to physical punishment during childhood would be more likely to endorse the use of physical punishment with their preschoolers than parents who did not report such exposure; b) Marital satisfaction would moderate the relationship between childhood exposure to physical punishment and current use of physical punishment for both mothers and fathers, such that parents who reported high levels of marital satisfaction would be less likely to physically punish their child than those who did not. Given the relative paucity of previous research on fathers, these hypotheses, as they applied to fathers, were tentative.

## Method

### Participants

Participants were 241 mothers and 107 fathers whose children (51.5% male) ranged in age from 29 to 45 months ( $M = 37.5$  months,  $SD = 2.7$ ). Parents and children were participants in a large, ongoing longitudinal study examining the predictors and correlates of externalizing behavior in preschool children. Children and their families resided in or within a 40-mile radius of a medium-size, midwestern city, and were recruited through local pediatric practices, day-care centers and pre-schools, and through newspaper advertisements in local and regional newspapers. Families with children who had severe physical or mental problems were excluded from the study, as were children and families who experienced extreme environmental stressors, such as severe economic hardship and/or residence in a violent neighborhood.

Families were representative of the local population. Most children were of European American heritage (91%). Others were of African-American (5.5%), Hispanic American (2.5%), and Asian American (1%) racial or ethnic backgrounds. The majority (87.9%) resided in two-parent families; of the remaining households, 5.3% of parents identified themselves as single (never married), and 6.8% as divorced. Fifty-five percent of mothers worked outside the home. Nineteen percent of mothers and 24% of fathers had received high school educations with no further educational attainment; 46% of mothers and 34% of fathers had completed four years of college with no further training; and 35% of mothers and 42% of fathers had completed some additional graduate or professional training. The median annual family income was \$52,000, ranging from \$20,000 to over \$100,000. Families had a mean score of 7.58 (range = 2–9,  $SD = 1.59$ ) on Hollingshead's (1975) occupational scale, indicating that the majority of parents' occupations fell into the minor professional category.

### Procedure

Information for the current study was gathered by a female social worker over the course of two to four home visits. During the first visit, the participating parent filled out consent forms and demographic questionnaires, and then completed a semi-structured interview adapted from that used by Dodge and colleagues (Dodge, Bates, & Pettit, 1990). The interview included questions regarding the parent's childhood exposure to physical discipline and current endorsement of discipline practices. At the end of this visit, the participating parent received a packet of questionnaires, including a questionnaire regarding marital satisfaction and conflict. During a second home visit, the interviewer collected the packet of questionnaires. Parents were instructed to complete the questionnaires separately.

### Measures

*Physical punishment experiences in childhood.* As part of the semi-structured interview adapted from that used by Dodge and colleagues (Dodge et al., 1990), each parent was asked to indicate whether each of his or her own parents used a variety of physical and non-physical methods of discipline during his/her childhood. Parents were asked about six specific physical punishment methods: hitting with hands, hitting with objects, hitting on the ears, hitting on the arms and legs, pulling hair, and shaking. Each item was scored as 1 if the parent indicated they had been exposed to this

punishment practice, and 0 if they did not. A total indices of physical punishment by mother and by father were computed by summing the total number of items (0–6) endorsed for each parent. In addition, parents were asked to rate how harsh they perceived the punishment they received during childhood to be: harsh (1), somewhat harsh (2), not harsh (3), or no discipline at home (4). This item was later reverse coded so that a rating of 4 corresponded to the highest degree of perceived harshness. This portion of the interview is shown in Appendix A.

*Kerig conflict and problem-solving scale—violence form (CPS-V; Kerig, 1996).* In addition to indexing frequency and severity of overall conflict and the frequency of seven types of conflict strategies (cooperation, avoidance/capitulation, stonewalling, verbal aggression, physical aggression, child involvement and emotional abuse), this 87-item scale also obtains a global evaluation of marital quality for each partner. A single question asks each partner to rate how happy they have been with their relationship in the past year on a scale from 0 (extremely unhappy) to 5 (extremely happy). Responses to this question were used as an indicator of the parent's overall marital satisfaction.

*Current endorsement of physical discipline.* In an effort to broaden our assessment of physical punishment via parental self-report, an aggregate measure of endorsement of physical punishment was created by standardizing and summing two self-report variables. The first was the parent's endorsement of physical punishment in response to hypothetical disciplinary vignettes from the revised version of the Parenting Dimensions Inventory (PDI; Power, 1991), a self-report instrument that assesses multiple dimensions of parenting practices. Initial validity for the scale was established in several studies of both two-parent and single-parent families (Slater & Power, 1987).

Secondly, during the semi-structured interview, parents were asked to report whether they would hit in order to discipline their child in certain hypothetical scenarios, for example, "If the child does not eat," or, "If the child attempts to strike you." Each item was scored a 1 if the parent indicated they would hit the child in this scenario, and 0 if they would not. A total index of endorsement of physical punishment by mother and by father was computed by summing the total number of items (out of a possible seven items) endorsed for each parent. The scores from the PDI item and the semi-structured interview item were then standardized and summed to form an aggregate score. The alpha of the aggregate scale was .73 for mothers and .84 for fathers.

**Table 1** Means and standard deviations (*SD*) for endorsement of physical punishment, childhood punishment variables, and marital satisfaction

Variable	Mothers mean ( <i>SD</i> )	Fathers mean ( <i>SD</i> )
Situations in which would hit child (Sum Score, 0 to 7)	.99 (1.04)	.78 (.91)
Physical punishment, PDI (Scale of 0 to 3)	.19 (.29)	.21 (.33)
Harshness of childhood discipline (Scale of 1 to 4)	2.58 (.74)	2.57 (.71)
Exposure to Maternal physical punishment (Sum Score, 0 to 6)	1.26 (1.28)	1.03 (1.08)
Exposure to Paternal physical punishment (Sum Score, 0 to 6)	1.00 (1.11)	.94 (.87)
Marital satisfaction (Scale of 0 to 5)	4.32 (.91)	4.33 (1.00)

## Results

Means and standard deviations for all study variables are shown (computed separately for mothers and fathers) in Table 1. On average, parents endorsed moderate levels of physical punishment, with mothers' mean endorsement being slightly higher than fathers' on one of the two measures. Parents' mean harshness ratings indicate that, on average, both mothers and fathers rated their childhood punishment as not harsh to moderately harsh. Parents reported relatively low levels of childhood physical punishment from both their mothers and fathers, reporting exposure to an average of one out of six possible methods of physical punishment from each parent.

Bivariate correlations among all study variables are shown in Tables 2 and 3. For mothers, SES and reported exposure to maternal physical punishment were significantly related to their current endorsement of physically punitive discipline. SES was significantly, although weakly, positively related to overall marital satisfaction. As expected, reported exposure to maternal physical punishment, exposure to paternal physical punishment, and mothers' perceptions of their childhood discipline as harsh were all significantly intercorrelated. Contrary to expectation, mothers' marital satisfaction, their exposure to paternal physical punishment, and their perceptions of childhood punishment as harsh were unrelated to their current endorsement of physical punishment.

For fathers, SES, reported exposure to paternal physical punishment, and perceived harshness of their childhood dis-

cipline were positively and significantly associated with their endorsement of physical punishment practices. In addition, SES was significantly negatively correlated with reported exposure to paternal physical punishment. As with mothers, fathers' ratings of their childhood punishment as harsh, reported exposure to maternal physical punishment, and reported exposure to paternal physical punishment were significantly correlated. Again, contrary to expectation, fathers' marital satisfaction and their reported exposure to maternal physical discipline were unrelated to their current endorsement of physical discipline.

Next, hierarchical linear regression analyses were constructed to evaluate the independent effects of maternal physical punishment, paternal physical punishment, harshness of childhood discipline, and marital satisfaction in predicting parents' endorsement of physical punishment, as well as the role of marital satisfaction in moderating the effects of exposure to maternal and paternal physical punishment. To test for moderating effects, interaction terms were computed by multiplying ratings of childhood physical punishment (maternal and paternal separately) by ratings of marital satisfaction (Baron & Kenny, 1986). Two separate models were constructed for each parent, one that incorporated the direct effects of the aforementioned predictor variables, and another that addressed the moderating effects of marital satisfaction on parents' endorsement of physical punishment. In the direct effects model, we controlled for the potential effects of SES by entering this variable into the regression equation first, since a relationship between SES and marital satisfaction was found for both mothers and fathers. Perceived harshness of childhood discipline and maternal and paternal physical punishment, respectively, were entered together next. Marital satisfaction was entered last. In the moderating effects model, the interactions between marital satisfaction and childhood exposure to maternal punishment and paternal punishment, respectively, were entered jointly to consider the role of marital satisfaction in moderating endorsement of physical punishment. Results are shown for mothers and fathers separately in Tables 4 and 5.

For mothers, the regression model was significant,  $F(5,191) = 3.14$ ,  $p < .05$ . As expected based on the reported bivariate correlations, reported experience of maternal physical punishment in childhood was independently predictive of current endorsement of physical punishment, while SES approached significance. The effects of marital satisfaction, reported experience of paternal physical punishment, and perceived harshness of childhood discipline were not significant.

For fathers, SES and perceived harshness of childhood discipline were independently predictive of endorsement of physical punishment, and reported experience of paternal physical punishment approached significance. The model

**Table 2** Correlations among SES, childhood punishment variables, marital satisfaction, and endorsement of physical punishment—mothers

Variable	1	2	3	4	5	6
1. SES	—	-.07	-.08	.01	.14*	-.22**
2. Exposure to maternal physical punishment		—	.33***	.33***	-.11	.25***
3. Exposure to paternal physical punishment			—	.39***	-.12	.10
4. Harshness of childhood discipline				—	-.05	.10
5. Marital satisfaction					—	-.07
6. Endorsement of physical punishment						—

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

explained 24% of the variance in fathers' endorsement of physical punishment,  $F(5,89) = 5.52, p < .001$ .

As shown in Table 5, hierarchical regression models were constructed to test for the moderating effects of marital satisfaction. The model for fathers was significant, explaining 30% of the variance in endorsement of physical punishment,  $F(7,87) = 5.27, p < .001$ . The interaction between marital satisfaction and reported childhood exposure to paternal punishment was significant, and the interaction with maternal physical punishment approached significance as well, indicating that marital satisfaction moderated the relationship between childhood physical discipline and current endorsement of physical discipline for fathers.

Although the overall model for mothers was significant,  $F(7,189) = 2.62, p < .05$ , the predicted interaction effects failed to reach significance. Thus, marital satisfaction did not moderate the relationship between reported exposure to physical punishment in childhood and current endorsement of physical punishment for mothers.

**Discussion**

Prior research has offered mixed findings as to whether the intergenerational transmission of physical punishment operates for both mothers and fathers, and has not yet considered marital satisfaction as a moderating factor in the intergenerational transmission of physical punishment that does

not qualify as abuse. We hypothesized that the intergenerational transmission of physical punishment would occur for both mothers and fathers, and that marital satisfaction would moderate this association. The findings of this study provide support for differing mechanisms in the intergenerational transmission of physical punishment for mothers versus fathers. Mothers who were physically punished by their own mother in childhood were more likely to endorse the use of physical punishment with their children. Fathers were more likely to endorse physical punishment if they had perceived the overall discipline in their childhood home as harsh. Finally, fathers, but not mothers, were significantly less likely to endorse physically punishing their children if their marital satisfaction was high. Therefore, when predicting current endorsement of physical punishment, a greater direct effect of exposure to physical punishment in childhood was found for mothers, and a moderating effect of marital satisfaction on exposure to physical punishment in childhood was found for fathers.

These findings support prior work showing that fathers are less directly influenced by their childhood punishment experiences than are mothers. For mothers, exposure to harsh, physical punishment in their families of origin has been shown to be positively related to current use of physical punishment with their own children (Stattin et al., 1995; Cappell & Heiner, 1990), and has shown stronger effects than those received for fathers (Muller et al., 1995; Simons

**Table 3** Correlations among SES, childhood punishment variables, marital satisfaction, and endorsement of physical punishment—fathers

Variable	1	2	3	4	5	6
1. SES	—	-.02	-.18*	-.11	-.06	-.37**
2. Exposure to maternal physical punishment		—	.42***	.38***	.08	.12
3. Exposure to paternal physical punishment			—	.27**	-.05	.29**
4. Harshness of childhood discipline				—	-.03	.29**
5. Marital satisfaction					—	-.17
6. Endorsement of physical punishment						—

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**Table 4** Summary of hierarchical regression analysis of SES, perceived harshness of childhood discipline, physical punishment history, and marital satisfaction as direct predictors of physical punishment (*n* = 196 mothers, 94 fathers)

Variable	Mothers				Fathers			
	<i>B</i>	SE <i>B</i>	$\beta$	<i>R</i> <sup>2</sup>	<i>B</i>	SE <i>B</i>	$\beta$	<i>R</i> <sup>2</sup>
SES	-.023	.012	-.135 <sup>a</sup>	.02*	-.052	.018	-.274**	.10**
Harshness of Childhood Discipline	-.062	.181	-.027	.03	.540	.248	.222*	.18**
Exposure to Maternal physical punishment	.286	.105	.210**	.07**	-.051	.171	-.003	.18
Exposure to Paternal physical punishment	.092	.117	.062	.08	.379	.286	.107 <sup>a</sup>	.21 <sup>a</sup>
Marital Satisfaction	-.024	.130	-.013	.08	-.268	.164	-.152	.24

<sup>a</sup>*p* < .10.

\**p* < .05; \*\**p* < .01.

et al., 1991). Specifically, exposure to maternal, as opposed to paternal, physical punishment in childhood seems to be a key factor in this transmission for mothers. Researchers have argued that mothers' roles are more conventional and scripted and that children are more likely to learn their parenting scripts from mothers, suggesting that mothers' use of physical punishment would be more likely to be transmitted as a model for how to discipline a child (Cappell & Heiner, 1990; Simons et al., 1991). Although the impact of maternal current endorsement was not significantly associated with fathers' current endorsement, research has shown that the transfer of parenting styles across generations may be specific to parent gender, with mother-daughter dyads showing more similarity than mother-son dyads (Elder et al., 1986; Simons et al., 1991; Thornberry, Freeman-Gallant, Lizotte, Krohn, & Smith, 2003).

On the other hand, fathers' perceived harshness of childhood discipline was predictive of current endorsement of physical punishment, whereas this was not the case for mothers. The distinction between report of actual childhood punishment experiences and perceived overall harshness of discipline in childhood appears to be important one when considering mothers' as compared to fathers' physical punishment. Previous research by Bower and Knutson (1996)

with college students indicated that individuals' self-labeling as abused was more predictive of their attitudes towards physical punishment than the type and severity of physical punishment they reported receiving. However, it may be that perceiving oneself as abused shapes one's attitudes towards physical punishment before parenthood (Holden, Thompson, Zambarano, & Marshall, 1997), but that one's amount of exposure to physical punishment is more predictive of one's actual physical punishment practices after becoming a parent. Considering that mothers generally occupy the role of primary caretaker and generally have more time and opportunity to punish their children (Day, Peterson, & McCracken, 1998), perhaps fathers' prior attitudes regarding their childhood discipline continued to carry more weight into parenthood due to less time spent with their children.

Marital satisfaction moderated the effects of childhood exposure to physical punishment on current endorsement of physical punishment for fathers only, providing further evidence of the indirect effects of childhood punishment on fathers' current physical discipline. This moderation was significant regarding exposure to paternal punishment, and approached significance in terms of exposure to maternal punishment. This finding is consistent with prior studies showing that fathers' parenting is more strongly affected by marital

**Table 5** Summary of hierarchical regression analysis for variables predicting use of physical punishment with marital satisfaction included as a moderator (*N* = 196 mothers, 94 fathers)

Variable	Mothers				Fathers			
	<i>B</i>	SE <i>B</i>	$\beta$	<i>R</i> <sup>2</sup>	<i>B</i>	SE <i>B</i>	$\beta$	<i>R</i> <sup>2</sup>
SES	-.025	.012	-.151*	.02*	-.052	.017	-.277**	.10**
Harshness of Childhood Discipline	-.055	.181	-.024	.03	.583	.243	.240*	.18**
Maternal physical punishment	-.100	.429	-.074	.07**	1.60	.884	.979 <sup>a</sup>	.18
Paternal physical punishment	1.04	.620	.705	.08	2.11	.862	1.04*	.21 <sup>a</sup>
Marital Satisfaction	.083	.205	.046	.08	.390	.290	.222	.24
Marital Sat. × Maternal Pun	.093	.101	.289	.08	-.341	.190	-1.00 <sup>a</sup>	.26 <sup>a</sup>
Marital Sat. × Paternal Pun	-.229	.147	-.651	.09	-.404	.196	-.891*	.30*

<sup>a</sup>*p* < .10.

\**p* < .05; \*\**p* < .01.

satisfaction than that of mothers (e.g., Belsky et al., 1991; Barber, 1987). It has been suggested that mothers' emotions towards and relationships with various family members may be more compartmentalized, whereas fathers' relationships with children may be more influenced by their marital relationship. Alternatively, fathers may be more susceptible to their partners' influences on their parenting because their parenting role is less scripted by social convention than that of mothers, and therefore less stable and more subject to change (Belsky et al., 1991).

The regression models for fathers were considerably stronger than those for mothers, explaining three to four times the variance of that of mothers'. This runs contrary to prior work finding stronger effects for mothers (e.g., Simons et al., 1991). Again, this may reflect the fact that both perceptions of childhood punishment as harsh and marital satisfaction were included in the present model, and that these more indirect influences were stronger for fathers than for mothers. Mothers' use of physical punishment may be influenced by a broader range of factors or by more proximal factors, especially in the context of spending more time with their preschoolers than fathers and, as a result, being more likely to perform disciplinary acts (Day et al., 1998; Nobes & Smith, 2000). For example, factors such as the child's temperament, the attachment relationship, daily stressors, the perceived seriousness of the child misbehavior or the mother's sensitivity, mood, or mental health may play an important role in determining mothers' punishment behaviors (e.g., Holden, Coleman, & Schmidt, 1995).

Prior research has shown that marital satisfaction moderates parenting behavior among women who were physically abused in childhood (Pianta et al., 1989; Egeland, 1988; 1987; Egeland et al., 1988). Our findings extend these conclusions by indicating that marital satisfaction moderates the transmission of physical punishment as well, but only in terms of fathers', not mothers', endorsement of physical punishment. More research is needed to understand why marital satisfaction may moderate lesser forms of harsh parenting in childhood for fathers (i.e., physical punishment) but more extreme forms of harsh parenting for mothers (i.e., physical abuse).

Equally interesting is the finding that marital satisfaction moderated the exposure to childhood physical punishment for fathers predominantly in relation to the fathers' childhood experience of paternal punishment. As with the stronger direct effects of maternal physical punishment on mothers (e.g., Simons et al., 1991), our findings support prior research demonstrating that the same-sex parent may have more influence on future parenting behavior, whether the child is male or female (Thornberry et al., 2003). To the best of our knowledge, previous research has not examined the moderating effect of marital satisfaction as it applies to exposure to maternal versus paternal punishment or abuse

specifically. Thus, although further research is needed, the intergenerational transmission of physical punishment for mothers and fathers may compare in the importance of the same-sex parent in this transmission, but contrast with respect to the weight of this influence, with the influence of exposure to parental punishment being more direct for women and more subject to the ameliorating influence of a satisfying marital relationship for men.

Previous research has highlighted the importance of socioeconomic status as a factor in the use of physical punishment (Straus & Stewart, 1999), as well as its transmission from generation to generation (Murphy-Cowan & Stringer, 1999). This study confirmed that socioeconomic status impacts both mothers' and fathers' use of physical punishment with their children, despite the fact that the majority of our participants were Caucasian, middle-class members of intact families who were therefore less likely to be subjected to severe stressors such as unemployment and single parenthood (which have been associated with higher levels of harsh discipline; Straus & Stewart, 1999; Giles-Sims et al., 1995; Daro & Gelles, 1992). Thus, even though our findings have low generalizability to low-income or ethnically diverse samples, we speculate that socioeconomic status is a consistent factor in the intergenerational transmission of physical punishment and should continue to be included in future research.

Certain limitations of the current study should be noted. First, we relied on parents' retrospective reports to determine their childhood exposure to physical punishment, even though parents' ability to accurately report on events experienced two decades ago may be questionable (Kaufman & Zigler, 1988; Ricks, 1985). In a recent review of the validity of adults' retrospective reports of adverse experiences in childhood, Hardt and Rutter (2004) found that non-clinical samples significantly under-reported abuse and neglect in childhood, and therefore those positive reports of abuse or neglect by such samples were likely to be correct. However, they also argued that adverse experiences in childhood were unlikely to be recounted in adulthood without significant judgment or interpretation, and therefore that little weight could be placed on such reports, particularly if the outcome of interest was difficult to operationalize or involved recall of detail (Hardt & Rutter, 2004). Considering that the present study investigated the existence of various methods of physical punishment experienced in childhood in a non-clinical sample, and that reports of such punishment were modest, we may be able to place some confidence in the validity of these reports. Regardless, parents' retrospective reports should still be interpreted with caution.

Second, our measures of physical punishment, both current and that experienced in childhood, might have been more complex. We were able to gather information on the number and types of physical punishment parents experienced in



childhood, but not on the frequency of such methods. For parents' current punishment, our measure assessed the degree to which parents endorsed hitting or spanking as a discipline technique, but did not address the severity or frequency of parental hitting. Ideally, an identical measure assessing the severity and frequency of physical punishment would be used to assess both parents' current use of physical punishment and the physical punishment used by their own mothers and fathers when they were children.

Despite these limitations, the results of the current study are interesting and suggest many possibilities for further research. We found that perceived and actual childhood punishment experiences, socioeconomic status, and current marital satisfaction were important predictors of parents' use of physical punishment, and that overall such factors were more influential for fathers than for mothers. Previous research has shown that fathers are less influenced by their childhood punishment experiences than mothers (Stattin et al., 1995; Cappell & Heiner, 1990). Perhaps fathers' punishment practices are an extension of the child's mother's beliefs about punishment, as has previously been found (Stattin et al., 1995). These results point to the importance of including fathers in future research on the predictors of physical punishment, as well as research on parenting practices in general. Fathers have historically been underrepresented in parenting research, thus reinforcing the cultural assumption that mothers are the primary bearers of parenting responsibilities (Langeland & Dijkstra, 1995). However, fathers have recently begun, and hopefully will continue, to take on an increasingly broad range of parenting roles and responsibilities. It therefore behooves us as researchers to understand what factors influence fathers' performance of these roles, as well as how fathers' behavior in these roles will affect the next generation.

**Appendix A: Measure of Parents' Discipline History**

How harsh was the discipline in your home?

- 1 = Harsh
- 2 = Somewhat harsh
- 3 = Not harsh
- 4 = No discipline

How did you mother punish you when you were a child? (You can select more than one)\*

- A. She would take away privileges or treats
- B. She would confront you:  Alone  In the presence of others

- C. She would hit you:  With her hands  With objects  On your ears  On your arms and legs  Pull your hair  Shake you
- D. She would send you to:  Your room  Another place
- E. She would ignore you
- F. She would scold you

**Acknowledgments** This research was supported by Grant MH57489 from the National Institute of Mental Health. We would like to thank the parents, children, teachers, and staff involved with the Michigan Longitudinal Study as well as the National Institute of Mental Health for making this study possible. We would also like to thank Kristen Ann Piangozza for her diligent work in supporting this project

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\*These questions were repeated for the parent's father.

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