

**Boston University****OpenBU****<http://open.bu.edu>**

BU Open Access Articles

BU Open Access Articles

2012-06-01

# Corporal punishment and youth externalizing behavior in Santiago, Chile

*This work was made openly accessible by BU Faculty. Please [share](#) how this access benefits you. Your story matters.*

Version	
Citation (published version):	Julie Ma, Yoonsun Han, Andrew Grogan-Kaylor, Jorge Delva, Marcela Castillo. 2012. "Corporal punishment and youth externalizing behavior in Santiago, Chile." CHILD ABUSE & NEGLECT, v. 36, Issue 6, pp. 481 - 490 (10). <a href="https://doi.org/10.1016/j.chiabu.2012.03.006">https://doi.org/10.1016/j.chiabu.2012.03.006</a>

<https://hdl.handle.net/2144/31437>*Boston University*



Published in final edited form as:

*Child Abuse Negl.* 2012 June ; 36(6): 481–490. doi:10.1016/j.chiabu.2012.03.006.

## Corporal Punishment and Youth Externalizing Behavior in Santiago, Chile

Julie Ma<sup>a</sup>, Yoonsun Han<sup>b</sup>, Andrew Grogan-Kaylor<sup>b</sup>, Jorge Delva<sup>b</sup>, and Marcela Castillo<sup>c</sup>

<sup>a</sup>Michigan State University School of Social Work

<sup>b</sup>University of Michigan School of Social Work

<sup>c</sup>University of Chile, Institute of Nutrition and Technology of Food

### Abstract

**Objectives**—Corporal punishment is still widely practiced around the globe, despite the large body of child development research that substantiates its short- and long-term consequences. Within this context, this paper examined the relationship between parental use of corporal punishment and youth externalizing behavior with a Chilean sample to add to the growing empirical evidence concerning the potential relationship between increased corporal punishment and undesirable youth outcomes across cultures.

**Methods**—Analysis was based on 919 adolescents in Santiago, Chile. Descriptive and multivariate analyses were conducted to examine the extent to which parents' use of corporal punishment and positive family measures were associated with youth externalizing behavior. Furthermore, the associations between self-reported externalizing behavior and infrequent, as well as frequent, use of corporal punishment were investigated to contribute to understanding how varying levels of parental use of corporal punishment were differently related to youth outcomes.

**Results**—Both mother's and father's use of corporal punishment were associated with greater youth externalizing behavior. Additionally, increases in positive parenting practices, such as parental warmth and family involvement, were met with decreases in youth externalizing behavior when controlling for youth demographics, family socioeconomic status, and parents' use of corporal punishment. Finally, both infrequent and frequent use of corporal punishment were positively associated with higher youth problem behaviors, though frequent corporal punishment had a stronger relationship with externalizing behavior than did infrequent corporal punishment.

**Conclusions**—Parental use of corporal punishment, even on an occasional basis, is associated with greater externalizing behavior for youth while a warm and involving family environment may protect youth from serious problem behaviors. Therefore, findings of this study add to the growing evidence concerning the negative consequences of corporal punishment for youth outcomes.

### Keywords

Chile; Corporal Punishment; Externalizing Behavior; Youth

---

Corporal punishment has been a widely practiced method of child discipline in many parts of the globe including the United States (Gershoff et al., 2010). However, a large corpus of child development research supports the idea that there is an association between increased

---

Julie Ma (corresponding author), 254 Baker Hall, East Lansing, MI 48824, maju@msu.edu, Phone: 1-734-764-3309, Fax: 1-734-936-1961.

Yoonsun Han, 1080 South University Avenue, Ann Arbor, MI 48109

parental use of corporal punishment and undesirable children's outcomes (Gershoff, 2002). The United Nations' Committee on the Rights of the Child General Comment No. 8 explicitly stated that "...corporal punishment and other cruel or degrading forms of punishment are forms of violence and States must take all appropriate legislative, administrative, social and educational measures to eliminate them." (United Nations Committee on the Rights of the Child, 2006, p. 6). With increased public attention to the harmful effects of corporal punishment, and growing conversations highlighting children's universal right to be respected and protected, the number of countries that prohibit corporal punishment at home has been increasing (Zolotor, Theodore, Runyan, Chang, & Laskey, 2010; Bitensky, 1998).

However, the U.S. (along with Somalia) remains one of two countries that has not ratified the United Nations' Convention on the Rights of the Child (United Nations Children's Fund, 2006). The use of corporal punishment in the home is legal in all U.S. states, as of 2008 (Global Initiative to End All Corporal Punishment of Children, 2011a). Parental use of corporal punishment remains high in the U.S., despite controversial public opinion concerning its positive and negative relationship with children's development (Bitensky, 1998; Gershoff, 2002). Within the United States, over the past two decades, more than 70% of U.S. respondents have agreed that spanking is necessary to discipline children (Davis, Smith, & Marsden, 2009). Furthermore, studies have reported that over 90% of toddlers have experienced spanking or other forms of corporal punishment (Straus & Kaufman Kantor, 1994). Approximately 45% of parents have used corporal punishment with their 13 year-old adolescents, with a steady decrease to around 25% by the time their children reach age 17 (Straus & Stewart, 1999). Although support for, and usage of corporal punishment in the U.S. have demonstrated a decreasing trend (Benjet & Kazdin, 2003; Zolotor et al., 2010), corporal punishment is still a widely used and endorsed method of discipline (Davis, Smith, & Marsden, 2009; Harper, Brown, Arias, & Brody, 2006) that is employed by parents to encourage compliance of children in American families.

Implications of parental corporal punishment for youth outcomes can be drawn on a theoretical basis. Social learning theory (or observational learning theory) suggests that, to motivate children to engage in positive behavior, but to avoid undesirable behavior and negative consequences, positive and desirable behavior should be reinforced by parents (Bandura, 1973; Bandura & Walters, 1959). Specially, social learning theory would suggest that corporal punishment delivers the message to children that violence is an acceptable form of behavior. Thus, the use of corporal punishment may generate a household environment in which parental violence and aggression towards children is seen as legitimate. Furthermore, observing parental use of corporal punishment may teach children that physical violence is an appropriate and socially acceptable means of correcting misbehavior, and may have detrimental consequences that carry on onto adulthood (Straus, Sugarman, & Giles-Sims, 1997).

In fact, evidence of the adverse relationship of corporal punishment with a child's developmental outcomes, both short term and long term, is substantial. Empirical research has indicated that corporal punishment results in greater externalizing behaviors such as aggression (Cohen, Brook, Cohen, Velez, & Garcia, 1990; Eron, Huesman, & Zelli, 1991; Welsh, 1978) and antisocial behavior (Grogan-Kaylor, 2005; Straus et al., 1997; Gershoff et al., 2010) across a wide age range. Furthermore, research has found that when children with prior experience of corporal punishment become adults, they are more likely to spank their own children, and to engage in domestic violence, because they have learned to think that violence is socially appropriate (Straus & Kaufman Kantor, 1994).

Although a large tradition of literature has reported the deleterious association between corporal punishment and youth's development, only a limited number of studies have examined the effects of varying frequencies of corporal punishment on child outcomes (Taylor, Manganello, Lee, & Rice, 2010). Measures of the frequency of parental discipline provide a potentially more detailed account of a youth's interaction with parents, and allow one to test the question of whether the harmful relationship between corporal punishment and youth well-being persists even at the lowest levels. For example, Grogan-Kaylor (2004) examined the relationship of different levels (never, once, more than once) of corporal punishment with children's antisocial behavior, and found that even infrequent use of corporal punishment predicted increased levels of child antisocial behavior.

Further, it is important to simultaneously consider other aspects of parenting as parental use of corporal punishment is likely to be nested within an overall context of parenting. Prior literature has suggested that positive parenting is associated with reductions in externalizing behavior. In detail, parental support and positive family relationships have been considered as potential protective factors that may protect children from negative outcomes in the research on parenting (Harper et al., 2006; Simons, Johnson, & Conger, 1994). Relatedly, Lansford (2010) suggested that parental warmth may offset the deleterious effects of corporal punishment.

As seen in the literature cited above, the vast majority of the literature concerning corporal punishment with some exceptions is based in the U.S. and Canada, with a particular focus on European American and African American samples (Dasen & Mishra, 2000; Rogoff, 2003; Lansford, 2010). However, because parenting practices are highly affected by cultural and societal norms, reliance on studies conducted mainly in North America is likely to constrain our cross-cultural understanding of the consequences of corporal punishment (Gershoff et al., 2010; Lansford, 2010). Acknowledging possible cultural variations in parent-youth relationships, recent multi-country studies on corporal punishment have examined associations between corporal punishment and children's outcomes (Gershoff et al., 2010; Lansford, 2010; Runyan et al., 2010). Yet, Latin American populations still remain understudied in this area of research. The availability of data from a Latin American sample may represent an opportunity to study corporal punishment in a global context where investigation is still needed.

Of the 16 Latin American countries in which the use of corporal punishment is legally allowed (only Costa Rica, Uruguay, and Venezuela legally prohibit the use of corporal punishment as of 2011; Global Initiative to End All Corporal Punishment of Children, 2011b), Chile may be a particularly important country to examine because of the following reasons. First, not only is corporal punishment still lawful at home in Chile (Global Initiative to End All Corporal Punishment of Children, 2011b), research has shown that corporal punishment is a commonly accepted, and widely used and socially legitimate means for punishing undesirable behaviors of children in Chile. In a study of parental attitudes and practices of corporal punishment in Chile, Vargas et al. (1995) reported that more than 80% of parents in public schools and more than half of parents in private schools used corporal punishment to discipline their seventh and eighth grade children, suggesting the frequent use of corporal punishment in Chilean families. Second, there are wide-spread public health concerns over heightened levels of youth externalizing behaviors. A recent study of adolescents in Santiago, Chile reported levels of externalizing behaviors, such as bullying (45%), physical fights (41%), drugs (11%), alcohol (33%), cigarettes (30%), to be equivalent to those of youth in Europe and North America (Rudatsikira, Muula, & Siziya, 2008). Therefore, given the high prevalence of parental use of corporal punishment as well as youth externalizing behavior in Chile, a study that examines the link between these two domains of concern may be valuable.

This study hypothesized that increased use of parental corporal punishment would be associated with greater levels of youth negative developmental outcomes. Also, it was hypothesized that the positive association between corporal punishment and youth externalizing behavior would be greater at higher levels of corporal punishment. Finally, the study hypothesized that parental warmth would be a moderator in the relationship between parental use of corporal punishment and youth externalizing behavioral problems.

## Methods

### Sample

The analyses conducted for this study used cross-sectional data from the first part (2008–2010) of a two-part assessment, scheduled two years apart (next assessment is to be completed by the end of 2012), of adolescents participating in the Santiago Longitudinal Study (SLS). The SLS is a collaborative project between Chilean and United States institutions with funding from the U.S. National Institute on Drug Abuse (NIDA). In 2008–2010, a total of 1,068 youth (mean age = 14.5 years old, 51.5% male), from neighborhoods of middle to low socioeconomic status (SES), completed a two-hour standardized questionnaire, in Spanish, that was administered by Chilean psychologists. Participants for this study were recruited from a community sample of approximately 1,700 families that had participated in a study of nutrition when the youth were in infancy (Lozoff, De Andraca, Castillo, & Smith, 2003).

The standardized questionnaire assessed a range of topics, such as individual characteristics (e.g., age, gender, physical and mental health, behavioral outcomes, substance use, peers), and familial characteristics (e.g., relationship with parents, parental control and autonomy, family involvement). Measures were translated and back translated, and measures were then pilot tested with the population under investigation prior to conducting the study.

The analysis for the present study was based on 919 participants out of the 1,068 interviewed. The vast majority of missing cases consisted of youth (149 adolescents) who did not have a father or father figure in their lives, and so were not asked the questions regarding the youth-father relationship, an important variable in our study. Mean comparisons between the sample used in the analysis ( $N = 919$ ) and the sample omitted from the analysis due to missing variables ( $n = 149$ ) indicated the two groups were not significantly different for most variables, except for age and SES. We note that even though the youth in our analytic sample were younger (mean age = 14.3) than those excluded (mean age = 15), the actual difference was just over 8 months, which we believe to be a negligible difference in the context of our study. Both the SES (assessed by the Graffar measure, described later) of the analytic sample (mean Graffar = 32.84) and omitted sample (mean Graffar = 37.35) fell into the medium category (27–39) of the Graffar SES level. Therefore, we suggest that the patterns of missing data in this study provide little reason to be concerned about selection bias.

### Measures

**Externalizing YSR problem scale**—The dependent variable used in this study was a youth's externalizing behavior as assessed by the Youth Self Report (YSR) scale (Achenbach & Rescorla, 2001). The YSR is a widely used standardized assessment of adolescent's behavior problems and social competencies (Roussos et al., 2001). The externalizing problem scale (Cronbach's  $\alpha = 0.85$ ) was the sum of 15 questions on youth delinquent behavior and 17 questions on aggressive behavior. Youth were asked whether the behaviors were "not true" (0), "somewhat or sometimes true" (1) or "very true or often true" (2). Example questions included "I am mean to others," "I threaten to hurt people," "I do not

feel guilty after misbehaving,” for aggression and “I break rules at home, school or elsewhere,” “I hang around with kids who get in trouble” for delinquency.

**Use of corporal punishment**—Three-level dummy variables were created for both mother’s and father’s use of corporal punishment: “never-use” (0), “infrequent-use” (1), and “frequent-use” (2). These dummy variables were calculated from responses to a question (Conger & Ge, 1999; National Institute of Child Health and Human Development, 2008) that asked youths, “How often does your mother (father) strike or hit you with her hands or an object?” with four response categories (“never,” “sometimes,” “often,” “always”). In the present study, “never-use” was the reference category while the response category “sometimes” was coded as a dummy variable to represent “infrequent-use” of corporal punishment. Due to the extremely low number of observations in the “always” category, the “often” and “always” categories were combined as a single dummy variable that indicated “frequent-use” of corporal punishment by mothers and fathers.

**Warmth of parents**—Among the 17 item scale that measured the youth’s relationship with their parents, 9 questions that inquired about the quality of parent-child relationship were combined to assess the level of warmth of each parent (Conger & Ge, 1999; National Institute of Child Health and Human Development, 2008). Example items were: “When you and your mother spend time talking or doing things together, how often does she help you do something that is important to you?”, “...lets you know she really cares about you” and “...act supportive and understanding towards you?”, with four options for responses, “never” (1), “sometimes” (2), “often” (3), “always” (4). Cronbach’s alpha for this 9-item scale was 0.92 for mothers and 0.93 for fathers.

**Family involvement**—The level of family involvement was assessed by asking adolescents five questions that measured the level of positive family relationship (Riley et al., 1998a; Riley et al., 1998b). Examples of questions were: “Thinking about your family, about how many days in the past 4 weeks did your parents or other adults in your family spend time with you doing something fun?” and “...talk with you or listen to your opinions and ideas?”. Response categories were “no days” (1), “1 to 3 days” (2), “4 to 6 days” (3), “7 to 14 days” (4) and “15 to 28 days” (5). Cronbach’s alpha for this 5-item scale was 0.73.

**Demographic characteristics**—Youth reported their gender and age. Gender was a dichotomous variable with males coded as “1” and females as “0”. Age was a continuous variable that measured a youth’s age at the time of interview in years. Socioeconomic status of families was assessed using the social classification scale of Graffar (Graffar, 1956) that was completed by the parents who brought the youth to the interview site. The Graffar scale generated an index of SES appropriate for developing countries and is commonly used in research in Chile (Alvarez, Muzzo, & Ivanovic, 1985; Gahagan, Yu, Kaciroti, Castillo, & Lozoff, 2009; Lozoff et al., 2003). Questions such as number of family members, occupation and highest education of the head of household, characteristics of the house were used to obtain a composite score of SES (Ivanovic et al., 2004). Example items were: “total years of parent’s schooling” with response categories ranging from 1 to 20 years; “housing arrangement” with response categories being “own house”, “mortgaged house”, “renting house”, “loan or gift” and “backhouse (living in back of the main house).”

## Analysis Strategy

We first present descriptive statistics for the study sample. As part of our descriptive analysis, we used the *T*-scores of the YSR externalizing behavior scale because this transformation allowed us to compare some of our descriptive findings to those of U.S. adolescents. In our regression analyses, our question of interest revolved around

understanding the relationship of a continuous dependent variable (raw score for externalizing behavior) with a number of independent variables. Thus ordinary least squares regression was an appropriate method of analysis, and was employed in this study. Given the categorical nature of the independent variable that measured parent's (both mother and father) use of corporal punishment, a regression model with three-level dummy variables ("never-use," "infrequent-use," and "frequent-use" of corporal punishment) was examined to estimate the varying relationships between multiple levels of corporal punishment used by the mother and father and youth's externalizing behavior. These corporal punishment dummy variables measuring physical discipline by the mother and father were included simultaneously as a single "corporal punishment" block in the regression model. Similarly, to understand the effect of positive parenting on youth's externalizing behavior, warmth of mother and father measures, and family involvement were represented by a single "positive parenting" block. To test for the potential moderation effects of parental warmth, we also examined interactions between parent's warmth and corporal punishment. In addition, gender, age, and family SES were included as statistical control variables. Finally, the study reported both nonstandardized and standardized coefficients. Standardized coefficients were used to compare the relative contribution of each independent variable in the prediction of the dependent variable (Woolley & Grogan-Kaylor, 2006). All data analyses were conducted with STATA 11.0 (StataCorp., 2009).

## Results

### Descriptive Statistics

Descriptive statistics for the analytic sample ( $N = 919$ ) are provided in Table 1. The proportion of male and female youth within the study sample was nearly the same. In this sample, the average Graffar score was 32.85, with most (81.5%) youth falling into the "medium" and "medium low" family SES category. Warmth of mother had a statistically higher ( $p < 0.0001$ ) mean (3.22) compared to that of the father (2.95).

Achenbach reports "T-scores" for a normative United States sample. *T*-scores are generated from the raw score, with higher scores indicating increased behavior problems (Achenbach, 1991; Achenbach & Rescorla, 2001). *T*-score calculation is based on the mean and standard deviation of the normative U.S. sample and the raw score of each Chilean youth using the formula:  $T = 50 + (10 * (\text{raw score} - \text{mean})) / \text{standard deviation}$ . A *T*-score of 60 is the clinical cutpoint on the behavior scales, with scores of 60 to 63 considered to be within the borderline clinical range and scores of 64 and above to be clearly within the clinical range (Achenbach, 1991; Achenbach & Rescorla, 2001). Achenbach and Rescorla (2001) proposed that *T*-scores greater than or equal to 64 indicate a need for clinical intervention for externalizing behavior. Compared to the mean raw score of externalizing YSR problem scale among non-referred youth in the United States (boys = 9.8, girls = 9.9) (Achenbach & Rescorla, 2001), our Chilean sample had a higher mean (boys = 13.1, girls = 13.3). In this sample, 30% ( $n = 142$ ) of the male adolescents and 25% ( $n = 110$ ) of the female adolescents scored above 60 on the externalizing YSR problem scale. If the 64 cutpoint were to be applied, 17% ( $n = 154$ ) of youth in this sample, more specifically, 19% ( $n = 88$ ) of the male adolescents and 15% ( $n = 66$ ) of the female adolescents would be categorized within the clinical range.

Variance Inflation Factor (VIF) and Pearson correlations indicated that the variables included in this study were not subject to issues of multicollinearity. Specifically, the Pearson correlation between mother's and father's use of corporal punishment was 0.34 while it was 0.55 between mother's warmth and father's warmth (Table 3). The mean difference between fathers' and mothers' use of physical punishment was statistically different at the 1% significance level.

## Ordinary Least Squares Regression

Results of the OLS analysis underscored the positive association between corporal punishment with regard to youth externalizing behavior (Table 4). Table 4 contained information from four regression models that examined the relationship between measures of parental corporal punishment and positive parenting and youth externalizing behavior, while holding constant child demographic and family SES variables. The demographic control variables (age, gender) and family SES measures were not significant in the final models. Age, however, was statistically significant only in Model 1.

Model 1 indicated that both mother's and father's infrequent and frequent use of corporal punishment were associated with higher externalizing behavior scores than was never using corporal punishment, while controlling for child demographics and family SES. Model 2 indicated that warmth of parents and family involvement were related to lower levels of externalizing behavior, when holding constant the age and gender of the youth, and parental SES. Although both the mother-warmth and father-warmth relationships were negatively associated with youth externalizing behavioral scores, standardized coefficients suggested that there was a greater relationship between mother's warm parenting (-0.096) and the youth's positive behavioral scores, than that of fathers (-0.081). Model 3 was a more comprehensive model, which included both measures of parental use of corporal punishment and measures of positive parenting. Regression results indicated that both infrequent and frequent use of parental corporal punishment continued to be associated with greater externalizing behavioral scores compared to never using corporal punishment, while positive parenting practices were associated with lower levels of externalizing behavior at a statistically significant level (father's use of infrequent corporal punishment and father's warmth were significant at a trend). Furthermore, the standardized beta coefficient for frequent use of corporal punishment was larger than that associated with the infrequent use for both mothers and fathers.

Model 4 included the interaction between mother's frequent corporal punishment and mother's warmth, and indicated that maternal warmth was a statistically significant moderator of corporal punishment in this relationship ( $p < .01$ ). In contrast, the interaction between mother's infrequent use of corporal punishment and maternal warmth was not significant. In the case of fathers, paternal warmth was not a statistically significant moderator of the relationship between paternal corporal punishment and externalizing behavior. In order to more thoroughly explore the statistically significant interaction between maternal use of corporal punishment and maternal warmth, we conducted a simple slopes analysis as outlined in Preacher (2012). This simple slopes analysis suggested that, at lower and middle levels of maternal warmth, mother's frequent use of corporal punishment was a statistically significant predictor of youth externalizing behavior. However, at the highest level of maternal warmth, the relationship of frequent use of corporal punishment with youth externalizing behavior was not statistically distinguishable from zero.

## Discussion

Findings of this community study of Chilean adolescents and parents were consistent with existing literature and confirmed the hypothesis that the use of parental corporal punishment was associated with higher levels of youth problem behavior. Results thus supported the emerging literature suggesting potential universality of this significant relationship across countries (Gershoff et al., 2010; Lansford, 2010). The availability of identical information on positive and negative parenting of the mother and father, in addition to the information on the frequency of mothers' and fathers' corporal punishment, was a unique aspect of this Chilean sample.



### Higher externalizing scores and lower prevalence of corporal punishment

Descriptive statistics indicated that the *T*-score for externalizing YSR problem scale of our Chilean sample was higher than that of the non-referred youth in the United States. Whether this was a result of unique aspects of Chilean culture, or due to the fact that our sample contained youth mostly from mid- to low-SES families, or due to measurement issues in the YSR externalizing problem scale warrants further investigation.

The prevalence of corporal punishment in this analysis was lower than that of previous studies in the U.S. This study reported that 20% of mothers and 10% of fathers use corporal punishment, whereas Straus and Stewart (1999) reported that one third of American parents had used one or more types of corporal punishment during the previous 12 months to discipline their child at age 14, which is around the mean age of this study's sample. Frequency of corporal punishment in this study was also low when compared to a study that examined practices regarding corporal punishment in Santiago, Chile. Vargas et al. (1995) found that youth-report (average 12 year-olds) of parental use of corporal punishment were 85.7% and 54.1% for youths who attend public schools and a private school, respectively. The different prevalence rates between Vargas and colleague's (1995) study and the present study may be due to differences in the operationalization of corporal punishment. In detail, the definition of corporate punishment in the present study was restricted to parental incidents of striking or hitting with hands or an object, whereas the corporal punishment measure in the Vargas et al.'s (1995) study encompassed broader forms of parental violence, such as battering, pulling, and shaking. In addition, the fact that the average age of our study's respondents was 14.3 years, a higher age than that of the Vargas et al. (1995) study, may explain the difference in prevalence rates. In fact, within U.S. samples, it has been reported that parental use of corporal punishment diminishes with the child's age (Straus & Stewart, 1999) and during adolescence (Giles-Sims, Straus, & Sugarman, 1995). Lastly, research has provided evidence concerning the decreasing trend in the approval of corporal punishment as an acceptable method of child discipline (Straus & Mathur, 1996) suggesting that the lower rates of corporal punishment found in this study could be potentially attributable to changes in cultural norms and disciplinary practices over time.

### Increased corporal punishment associated with increased externalizing behavior

In the present study we examined the relationship between parental use of corporal punishment and youth's externalizing behavior using four OLS regression models. Overall, the results were consistent with the prediction of social learning theory, and numerous previous studies that have found parental use of corporal punishment to be significantly and positively associated with youth's externalizing behaviors such as aggression (Cohen et al., 1990; Eron et al., 1991; Welsh, 1978) and antisocial behaviors (Gershoff et al., 2010; Grogan-Kaylor, 2004; Straus et al., 1997).

### Frequency of corporal punishment and externalizing behavior

Among the 20% of mothers and 10% of fathers in our sample who were reported to have used corporal punishment, the majority used it infrequently (mothers = 17.4%, fathers = 8.2%) as opposed to those who used it frequently (mothers = 1.9%, fathers = 1.5%). By using the frequency of parental use of corporal punishment as the main independent variable, this study was able to disaggregate the effect of infrequent and frequent corporal punishment on youth's externalizing behavior. Results indicated that the frequent use of both mother's and father's corporal punishment had a stronger association ( $p < 0.01$ ) with increases in externalizing behavior problem than did infrequent use of corporal punishment. Furthermore, study results indicated that even infrequent use of parental corporal punishment was positively associated with higher levels of externalizing behavior in youth. This finding, along with the previous empirical studies on corporal punishment (Gershoff et

al., 2010; Grogan-Kaylor, 2004; Taylor et al., 2010), strongly suggest that parental corporal punishment—even on an occasional basis—can have an adverse relationship with children and youth developmental outcomes.

### Family involvement and parental warmth as protective factors

Throughout our models, positive parenting practices were met with decreases in youth externalizing behavior even when controlling for youth demographics and parents' use of corporal punishment. Both mother's and father's warmth were associated with lower levels of youth externalizing behavior at a significant level. Family involvement was a statistically significant predictor when holding other independent variables constant, and increases in family involvement were associated with decreases in externalizing behavior. Additionally, the negative sign of the interaction between a mother's frequent use of corporal punishment and maternal warmth indicated that the association of maternal frequent use of corporal punishment with child externalizing behavior was less strong when levels of maternal warmth were higher. In contrast, it is worth remembering that the relationship of mother's infrequent use of corporal punishment with youth externalizing behavior was not moderated by maternal warmth. Further, paternal use of corporal punishment was not moderated by paternal warmth suggesting that the relationship between paternal use of corporal punishment and youth externalizing behavior was not different in families with different levels of paternal warmth. These results were in line with previous literature (Harper et al., 2006; Simons et al., 1994) that suggested maternal warmth can be a significant moderator of the relationship between use of corporal punishment and youth's externalizing behavior. Notably, despite the presence of some moderation effects, our model suggested that increased corporal punishment was never associated with decreases in behavior problems.

### Limitations

The findings of this study should be interpreted with the following limitations in mind. First, the operationalization of corporal punishment within this study could be an issue. This study used information on corporal punishment that relied on a single question that asked about the frequency of parental use of corporal punishment, which was defined as a parent striking the youth with his or her hands or an object. The use of a single question to measure the construct of corporal punishment may to some degree explain why the prevalence of this construct was lower in our study when compared to other studies. In addition, although the frequency of using corporal punishment on youth's development was investigated, this study was neither able to measure, nor ascertain, the severity of corporal punishment. Therefore, studies with more comprehensive measures of corporal punishment that are grounded in a thorough understanding of the parenting practices in Chile are needed to better understand the potential consequences for Chilean youth.

Second, this study only used a youth's report on parent's use of corporal punishment. Thus single-reporter bias could be a potential problem (Lippold, Greenberg, & Feinberg, 2010). Future research would contribute to the literature by using information on corporal punishment from both parents and youth. Nonetheless, despite the potential for under-estimation of the occurrence of corporal punishment, this study offered several important findings that clearly point to the deleterious implications of using corporal punishment on youth well-being.

Third, the cross-sectional design of this analysis makes it impossible to examine causal or temporal associations among these variables. Given the transactional nature (Sameroff, 2009) of the parent-youth relationship, it is possible that parental and youth behavior have reciprocal effects (Gershoff et al., 2012). In other words, parent's use of physical punishment and warm parenting behaviors may be a "reaction" to a child's externalizing

behaviors. Notwithstanding these limitations, this study's use of extensive family and parenting characteristics, and various analyses conducted, contributes to the growing cross-cultural literature on parental discipline, especially in the Latin American context.

## Conclusion

This study demonstrated a positive relationship between the use of infrequent and frequent corporal punishment and externalizing behavior among a community sample of Chilean youth, even after controlling for demographic characteristics of the youth as well as a number of other family and parenting variables. The results confirmed the hypothesis that both infrequent and frequent use of corporal punishment by both mother and father predicted higher scores on the YSR externalizing problem scale, a finding consistent with the literature in this field. In contrast, findings from this study also emphasized the importance of a warm and involving family environment in protecting youth from serious problem behaviors. Further, the significant interaction between positive parenting measures and corporal punishment alluded to the protective role of positive parent-youth interactions amidst negative relationships.

These empirical findings, when grounded firmly in the ideas of social learning theory, may lend support for using alternative parenting methods to corporal punishment such as verbal interactions, age appropriate and firm rule setting, parenting with consistency, structure and predictability (Paintal, 2007) as well as age appropriate and reasonable deprivation of privilege (Gershoff, 2008). Therefore, findings from this study may suggest that public officials and professionals make widely available information to parents concerning the association between corporal punishment and undesirable developmental outcomes of youth while promoting alternative parenting strategies. Studies that specifically test the effectiveness of these alternative disciplinary methods in the Chilean youth context are warranted in the future. With the growing evidence of the association between parental use of corporal punishment and children's adverse developmental outcomes, the world-wide conversation concerning corporal punishment should be continued in countries that currently recognize corporal punishment as proper and lawful, in order to fully protect and respect children and youth's rights.

## References

- Achenbach, TM. Manual for the Youth Self Report and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry; 1991.
- Achenbach, TM.; Rescorla, LA. Manual for the ASEBA School-Age Forms & Profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families; 2001.
- Alvarez ML, Muzzo S, Ivanovic D. Escala para medición del nivel socioeconómico el área de la salud. *Revista médica de Chile*. 1985; 113:243–249. [PubMed: 3915140]
- Bandura, A. *Agression: A social learning analysis*. Englewood Cliffs, NJ: Prentice-Hall; 1973.
- Bandura, A.; Walters, RH. *Adolescent Aggression*. New York: Ronald Press; 1959.
- Benjet C, Kazdin AE. Spanking children: The controversies, findings, and new directions. *Clinical Psychology Review*. 2003; 23:197–224. [PubMed: 12573670]
- Bitensky SH. Spare the rod embrace our humanity: Toward a new legal regime prohibiting corporal punishment of children. *University of Michigan Journal of Law Reform*. 1998; 31:353–474.
- Cohen, P.; Brook, JS.; Cohen, J.; Velez, N.; Garcia, M. Common and uncommon pathways to adolescent psychopathology and problem behavior. In: Robins, LN.; Rutter, M., editors. *Straight and devious pathways from childhood to adulthood*. New York: Cambridge University Press; 1990. p. 242-258.

- Conger, RD.; Ge, X. Conflict and cohesion in parent-adolescent relations: Changes in emotional expression from early to mid-adolescence. In: Cox, M.; Brooks-Gunn, J., editors. *Conflict and cohesion in families: Causes and consequences*. Mahwah, NJ: Erlbaum; 1999. p. 185-206. 1999
- Dasen PR, Mishra RC. Cross-cultural views on human development in the third millennium. *International Journal of Behavioral Development*. 2000; 24:428–434.
- Davis, JA.; Smith, TW.; Marsden, PV. *General Social Surveys, 1972-2006 [Cumulative File]* [Computer file]. ICPSR04697-v4. Storrs, CT: Roper Center for Public Opinion Research, University of Connecticut/Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributors], 2009-12-04. 2009.
- Eron, LD.; Huesman, RL.; Zelli, A. The role of parental variables in the learning of aggression. In: Pepler, DJ.; Rubin, KM., editors. *The Development and Treatment of Childhood Aggression*. Hillsdale, NJ: Erlbaum; 1991. p. 169-188.
- Gahagan S, Yu S, Kaciroti N, Castillo M, Lozoff B. Linear and ponderal growth trajectories in well-nourished, iron-sufficient infants are unimpaired by iron supplementation. *The Journal of Nutrition*. 2009; 139(11):2106. [PubMed: 19776186]
- Gershoff ET. Corporal punishment by parents and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*. 2002; 128:539–579. [PubMed: 12081081]
- Gershoff, ET. *Principles and Practices of Effective Discipline: Advice for Parents*. Columbus, OH: Center for Effective Discipline; 2008. Retrieved January 27, 2012, from [http://www.phoenixchildrens.com/PDFs/effective\\_discipline\\_brochure.pdf](http://www.phoenixchildrens.com/PDFs/effective_discipline_brochure.pdf)
- Gershoff ET, Grogan-Kaylor A, Lansford JE, Chang L, Zelli A, Deater-Deckard K, Dodge KA. Parent Discipline Practices in an International Sample: Associations With Child Behaviors and Moderation by Perceived Normativeness. *Child Development*. 2010; 81(2):487–502. [PubMed: 20438455]
- Gershoff ET, Lansford JE, Sexton HR, Davis-Kean P, Sameroff AJ. Longitudinal Links Between Spanking and Children's Externalizing Behaviors in a National Sample of White, Black, Hispanic, and Asian American Families. *Child Development*. 2012
- Giles-Sims J, Straus MA, Sugarman DB. Child, maternal, and family characteristics associated with spanking. *Family Relations*. 1995; 44:170–176.
- Global Initiative to End All Corporal Punishment of Children. Progress towards prohibiting all corporal punishment in North America. 2011a. Retrieved January 27, 2012, from <http://endcorporalpunishment.org/pages/pdfs/charts/Chart-NorthAmerica.pdf>
- Global Initiative to End All Corporal Punishment of Children. Progress towards prohibiting all corporal punishment in Latin America. 2011b. Retrieved January 27, 2012, from <http://endcorporalpunishment.org/pages/pdfs/charts/Chart-LatinAmerica.pdf>
- Graffar M. Une method de classification sociale d'échantillons de population. *Courrier*. 1956; 6(8): 455–459.
- Grogan-Kaylor A. The effect of corporal punishment on antisocial behavior in children. *Social Work Research*. 2004; 28:153–162.
- Grogan-Kaylor A. Corporal Punishment and the Growth Trajectory of Children's Antisocial Behavior. *Child Maltreatment*. 2005; 10(3):283–292. [PubMed: 15983111]
- Harper FWK, Brown AM, Arias I, Brody G. Corporal Punishment and Kids: How Do Parent Support and Gender Influence Child Adjustment? *Journal of Family Violence*. 2006; 21(3):197–207.
- Ivanovic D, Leiva B, Perez H, Olivares M, Diaz N, Urrutia MSC, et al. Head size and intelligence, learning, nutritional status and brain development head IQ learning, nutrition and brain. *Neuropsychologia*. 2004; 42(8):1118. [PubMed: 15093150]
- Lansford JE. The special problem of cultural differences in effects of corporal punishment. *Law and Contemporary Problems*. 2010; 73:89–106.
- Lippold M, Greenberg M, Feinberg M. A Dyadic Approach to Understanding the Relationship of Maternal Knowledge of Youths' Activities to Youths' Problem Behavior Among Rural Adolescents. *Journal of Youth and Adolescence*. 2010:1–14.
- Lozoff B, De Andraca I, Castillo M, Smith JB. Behavioral and developmental effects of preventing iron-deficiency anemia in healthy full-term infants. *Pediatrics*. 2003; 112(4):846. [PubMed: 14523176]

- National Institute of Child Health and Human Development. NICHD Study of early Child Care and Youth Development. Phase IV Instrument Documentation. 2008. Retrieved April 7, 2010 from <https://secc.rti.org/Phase4InstrumentDoc.pdf>
- Paintal S. Banning corporal punishment of children: An ACEI position paper. *Childhood Education*. 2007; 83(6):410.
- Preacher, KJ. A primer on interaction effects in multiple linear regression. 2012. Retrieved January 25, 2012, from <http://quantpsy.org/interact/interactions.htm>
- Riley AW, Green BF, Forrest CB, Starfield B, Kang M, Ensminger ME. A Taxonomy of Adolescent Health: Development of the Adolescent Health Profile-Types. *Medical Care*. 1998a; 36(8):1228–1236. [PubMed: 9708594]
- Riley AW, Forrest CB, Starfield B, Green BF, Kang M, Ensminger ME. Reliability and Validity of the Adolescent Health Profile-Types. *Medical Care*. 1998b; 36(8):1237–1248. [PubMed: 9708595]
- Rogoff, B. *The cultural nature of human development*. New York: Oxford University Press; 2003.
- Roussos A, Francis K, Zoubou V, Kiprianos S, Prokopiou A, Richardson C. The standardization of Achenbach's Youth Self-Report in Greece in a national sample of high school students. *European Child & Adolescent Psychiatry*. 2001; 10(1):47–53. [PubMed: 11315535]
- Rudatsikira E, Muula AS, Siziya S. Prevalence and correlates of physical fighting among school-going adolescents in Santiago, Chile. *Revista Brasileira de Psiquiatria*. 2008; 30(3):197–202. [PubMed: 18833418]
- Runyan DK, Shankar V, Hassan F, Hunter WM, Jain D, Paula CS, Bangdiwala SI, Ramiro LS, Munoz SR, Vizcarra B, Bordin IA. International Variations in Harsh Child Discipline. *Pediatrics*. 2010; 126(3):E701–E711. [PubMed: 20679301]
- Sameroff, AJ. The transactional model of development: How children and contexts shape each other. In: Sameroff, AJ., editor. *The transactional model*. Washington, DC: American Psychological Association; 2009. p. 3-21.
- Simons RL, Johnson C, Conger RD. Harsh Corporal Punishment versus Quality of Parental Involvement as an Explanation of Adolescent Maladjustment. *Journal of Marriage and Family*. 1994; 56:591–607.
- StataCorp. *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP; 2009.
- Straus MA, Kaufman Kantor G. Corporal punishment of adolescents by parents: A risk factor in the epidemiology of depression, suicide, alcohol abuse, child abuse, and wife beating. *Adolescence*. 1994; 29:543–562. [PubMed: 7832020]
- Straus, MA.; Mathur, AK. Social Change and Trends in Approval of Corporal Punishment by Parents from 1968 to 1994. In: Frehsee, D.; Horn, W.; Bussman, K., editors. *Violence Against Children*. Berlin and New York: Walter de Gruyter; 1996. p. 91-105.
- Straus MA, Stewart JH. Physical punishment by American parents: National data on prevalence, chronicity, severity, and duration, in relation to child and family characteristics. *Clinical Child and Family Review*. 1999; 2(2):55–70.
- Straus M, Sugarman D, Giles-Sims J. Spanking by parents and subsequent antisocial behavior of children. *Archives of Pediatrics & Adolescent Medicine*. 1997; 151:761–767. [PubMed: 9265876]
- Taylor CA, Manganello JA, Lee SJ, Rice JC. Mothers' Spanking of 3-Year-Old Children and Subsequent Risk of Children's Aggressive Behavior. *Pediatrics*. 2010; 125(5):e1057–e1065. [PubMed: 20385647]
- United Nations Children's Fund. *Convention on the Rights of the Child: Frequently Asked Questions*. 2006. Retrieved February 7, 2012, from [http://www.unicef.org/crc/index\\_30229.html](http://www.unicef.org/crc/index_30229.html)
- United Nations Committee on the Rights of the Child. *Convention on the Rights of the Child: General Comment No. 8 (2006)*. 2006. Retrieved October 26, 2009, from [http://www.unhcr.ch/tbs/doc.nsf/898586b1dc7b4043c1256a450044f331/6545c032cb57bff5c12571fc002e834d/\\$FILE/G0740771.pdf](http://www.unhcr.ch/tbs/doc.nsf/898586b1dc7b4043c1256a450044f331/6545c032cb57bff5c12571fc002e834d/$FILE/G0740771.pdf)
- Vargas NA, López D, Pérez P, Zúñiga P, Toro G, Ciocca P. Parental Attitude and Practice Regarding Physical Punishment of School Children in Santiago De Chile. *Child Abuse & Neglect*. 1995; 19(9):1077–1082. [PubMed: 8528814]
- Welsh RS. Delinquency, Corporal Punishment, and the Schools. *Crime and delinquency*. 1978; 24(3): 77–87.

- Woolley ME, Grogan-Kaylor A. Protective Family Factors in the Context of Neighborhood: Promoting Positive School Outcomes. *Family Relations*. 2006; 55(1):93–104.
- Zolotor AJ, Theodore AD, Runyan DK, Chang JJ, Laskey AL. Corporal Punishment and Physical Abuse: Population-based Trends for Three-to-11-year-old Children in the United States. *Child Abuse Review*. 2010; 20:57–66.

**Table 1**

Descriptive Statistics (N = 919)

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>
Use of Corporal Punishment		
Mothers	0.21	0.45
Fathers	0.11	0.36
Positive Parenting		
Mother's Warmth	3.23	0.69
Father's Warmth	2.96	0.82
Family Involvement	18.67	4.23
Externalizing YSR Problem Scale	13.21	7.24
Socioeconomic Status (Graffar)	32.85	6.69
Child Age (Years)	14.34	1.45
Gender (%)		
Boy	51.59	
Girl	48.41	

**Table 2**

Parental Use of Corporal Punishment (N = 919)

Variable	Frequency	Percent	Cumulative Percent
Mother's use of Corporal Punishment			
Never	742	80.74	80.74
Infrequent Use	160	17.41	98.15
Frequent Use	17	1.85	100
Father's use of Corporal Punishment			
Never	830	90.32	90.32
Infrequent Use	75	8.16	98.48
Frequent Use	14	1.52	100



**Table 3**

Pearson Correlations (N = 919)

	Mother's CP	Father's CP	Mother's Warmth	Father's Warmth	Family Involvement	Ext. Behavior	SES	Child Age	Gender
Mother's CP	1.000								
Father's CP	0.343	1.000							
Mother's Warmth	-0.207	-0.071	1.000						
Father's Warmth	-0.078	-0.185	0.550	1.000					
Family Involvement	-0.164	-0.139	0.534	0.443	1.000				
Externalizing Behavior	0.183	0.178	-0.279	-0.251	-0.336	1.000			
SES	0.063	0.032	0.003	-0.034	-0.053	0.045	1.000		
Child Age	-0.047	-0.054	-0.198	-0.224	-0.119	0.110	-0.079	1.000	
Gender	0.023	-0.048	-0.043	-0.047	-0.059	0.012	0.052	0.035	1.000

Table 4

Association between parenting practices and youth externalizing behaviors

	Model 1			Model 2			Model 3			Model 4		
	Coefficient	SE	Beta	Coefficient	SE	Beta	Coefficient	SE	Beta	Coefficient	SE	Beta
<u>Use of Corporal Punishment</u>												
Mother's Infrequent Use <sup>a</sup>	2.070**	(0.649)	(0.109)				1.236*	(0.628)	(0.065)	1.238*	(0.627)	(0.065)
Mother's Frequent Use <sup>a</sup>	5.574**	(1.753)	(0.104)				4.229*	(1.685)	(0.079)	18.08***	(5.623)	(0.338)
Father's Infrequent Use <sup>b</sup>	2.509**	(0.906)	(0.095)				1.661 <sup>†</sup>	(0.870)	(0.063)	1.839*	(0.870)	(0.070)
Father's Frequent Use <sup>b</sup>	6.178**	(1.905)	(0.105)				5.005**	(1.852)	(0.085)	5.093**	(1.847)	(0.087)
<u>Positive Parenting</u>												
Mother's Warmth				-0.987*	(0.413)	(-0.096)	-0.906*	(0.418)	(-0.088)	-0.781 <sup>†</sup>	(0.420)	(-0.076)
Father's Warmth				-0.708*	(0.334)	(-0.081)	-0.571 <sup>†</sup>	(0.337)	(-0.065)	-0.554 <sup>†</sup>	(0.336)	(-0.063)
Family Involvement				-0.414***	(0.064)	(-0.243)	-0.379***	(0.063)	(-0.222)	-0.377***	(0.063)	(-0.221)
<u>Mother's Frequent CP × Mother's Warmth Control</u>												
Gender <sup>c</sup>	0.155	(0.464)	(0.011)	-0.171	(0.445)	(-0.012)	-0.106	(0.442)	(-0.007)	-0.0600	(0.441)	(-0.004)
Age of Youth	0.600***	(0.154)	(0.125)	0.219	(0.153)	(0.046)	0.297	(0.152)	(0.062)	0.291 <sup>†</sup>	(0.151)	(0.061)
SES Status (Graiffar)	0.0550	(0.035)	(0.051)	0.0384	(0.033)	(0.036)	0.0437	(0.033)	(0.041)	0.0421	(0.033)	(0.039)
Observations		919			919			919			919	
R-squared		0.068			0.135			0.160			0.166	
Adj. R-squared		0.0606			0.129			0.151			0.156	

Note:

<sup>†</sup>  $p < 0.1$ ;\*  $p < 0.05$ ;\*\*  $p < 0.01$ ;\*\*\*  $p < 0.001$ ;<sup>a</sup> Reference group is Mother's never-use;<sup>b</sup> Reference group is Father's never-use;

Reference group is Females.

NIH-PA Author Manuscript

NIH-PA Author Manuscript

NIH-PA Author Manuscript