DIMENSIONS OF DISCIPLINE BY FATHERS AND MOTHERS AS RECALLED BY UNIVERSITY STUDENTS

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ACKNOWLEDGEMENTS

A previous version of this paper was presented at the International Family Violence and Child Victimization Research Conference, Portsmouth NH, July 8-10, 2007. Copies of related papers can be downloaded from http://pubpages.unh.edu/~mas2. It is a pleasure to express appreciation to the members of the Family Research Laboratory Seminar for valuable comments and suggestions. The work has been supported by National Institute of Mental Health grant T32MH15161 and by the University of New Hampshire.

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SYNOPSIS

Objective. This paper describes fathers' and mothers' use of 26 discipline behaviors, as measured by the Dimensions of Discipline Inventory (DDI). **Design.** A sample of 498 university students completed the DDI in reference to their parents' discipline when the students were preadolescents. **Results.** Participants reported similar prevalence and frequency rates for fathers' and mothers' use of many aspects of discipline. Mothers used inductive discipline more often than fathers. Fathers used corporal punishment more often than mothers, but fathers and mothers tended to use different types of corporal punishment. **Conclusions.** Examination of individual discipline behaviors appears to provide valuable information over and above the use of discipline scales. Most parents employ a range of inductive and power-assertive techniques to address preadolescents' misbehavior.

Discipline is a central feature of parental control, which is defined as one of the two basic dimensions of parenting along with warmth (described in Baumrind, 1971; Maccoby & Martin, 1983; Straus, 1964). Discipline can encompass many behaviors; one important conceptual distinction is between inductive and power assertive discipline (Grusec & Goodnow, 1994). A key element of discipline based on inductive discipline is that it focuses on cognitions concerning right and wrong, and especially on children learning the effects of their misbehavior on others (Hoffman, 1983). In contrast, power assertive techniques focus on punishments such as spanking, threats, and removal of privileges, as well as displays of anger, shaming, and humiliating (Grusec & Goodnow, 1994). In general inductive techniques are preferred due to higher likelihood of internalization (Grusec & Goodnow, 1994) and lower likelihood of undesired effects (Gershoff, 2002). Nonetheless, the majority of parents use both (Regalado, Sareen, Inkelas, Wissow, & Halfon, 2004), and there is evidence that the combination of inductive and power-assertive techniques is most effective for improving child behavior (Larzelere, Sather, Schneider, Larson, & Pike, 1998).

Another common distinction in research on discipline concerns proactive and reactive discipline, i.e., preventive versus corrective discipline. Preventive discipline establishes rules and expectations prior to any instance of misbehavior. Corrective discipline involves behavior by parents in response to, and intended to correct, perceived misbehavior by the child. Prevention and correction are interrelated but separate dimensions. Both are necessary parts of socialization because even parents who excel in the preventative aspects of socialization must make thousands of corrective actions, given that children's ability to control their own behavior grows slowly (Larzelere et al., 1998). Failure to take corrective action is an important risk factor for child behavior problems (Tremblay, 2003). Inadequate corrective discipline is also a crucial aspect of

child neglect and constitutes what has been called "supervisory neglect" (Kaufman Kantor et al., 2004; Straus, 2006; Straus & Kaufman Kantor, 2005; Straus, Kinard, & Williams, 1995). Although preventive discipline is extremely important, this paper focuses on corrective discipline.

Corrective discipline is a crucial aspect of parenting, but most research on discipline examines only a limited number of the behaviors used by parents to correct misbehavior. Therefore, the first objective of this paper is to broaden the scope of what is examined when discipline is considered, either clinically or in research. To achieve this goal, we provide data on more aspects of discipline than are usually considered in one study – specifically, 26 discipline behaviors such as time out, praise, reward, and spanking.

Fathers and Mothers

The second objective of the study was to investigate and compare fathers and mothers in respect to these 26 dimensions of discipline. In general, research indicates that mothers engage in more disciplinary acts than fathers (e.g., Hart & Robinson, 1994; Power, McGrath, Hughes, & Manire, 1994). Often, these differences are attributed to mothers typically spending more time with children than fathers do (Sandberg & Hofferth, 2001). Mothers and fathers may also tend to use different methods of discipline. For example, fathers have been found to use power assertion more frequently than mothers (Barnett, Quackenbush, & Sinisi, 1996) and mothers seem to use inductive discipline more often than fathers (Barnett et al., 1996; Russell et al., 1998). Mothers and fathers have been found to be equivalent on several aspects of discipline, such as punishments not involving explanation and psychologically aggressive tactics (Russell et al., 1998).

Corporal punishment has been the focus of research more often than many other aspects of discipline. The literature is inconsistent as to whether fathers use corporal punishment at similar rates to mothers (Feldman & Wentzel, 1990; Russell et al., 1998) or less frequently than mothers (Day, Peterson, & McCracken, 1998; Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). There is some evidence that mothers and fathers may be more likely to use different aspects of corporal punishment – in one study, fathers used more physical restraint, but mothers and fathers were equally likely to corporally punish using other methods (Nobes, Smith, Upton, & Heverin, 1999). A limitation of the studies examining frequency of specific discipline techniques is that they tend to focus on only a few techniques (e.g., Regalado et al., 2004). There is a need for more descriptive data concerning fathers' and mothers' use of a wide range of disciplinary techniques, including corporal punishment. Such data are also valuable because the effectiveness of a discipline method can be contingent on what other methods are also used. For example, the effectiveness of corporal punishment may depend on whether the parents also use reasoning and explanation (Larzelere, Schneider, Larson, & Pike, 1996).

Although the paper examines only corrective discipline, as previously noted, it does so more comprehensively than is usual. When corrective discipline is studied, problematic methods such as corporal punishment are more commonly studied than presumably "effective" methods (Locke & Prinz, 2002). This is not to deny the importance of corporal punishment. Corporal punishment is extremely important for many reasons, including its connections to physical abuse (Straus, 2000) and its association with numerous negative child outcomes (Gershoff, 2002). However, information is needed on other aspects of corrective discipline, both as context for understanding corporal punishment and in their own right.

The Dimensions of Discipline Inventory (DDI)

To implement these objectives we developed a new instrument called the Dimensions of Discipline Inventory (Straus & Fauchier, 2007). The DDI is designed to capture a range of corrective discipline strategies, from inductive techniques such as explanation to power-assertive techniques such as spanking. The core of the DDI is 26 items concerning discipline behaviors that parents use in response to child misbehavior. These items were derived from a review of the discipline literature and existing measures, suggestions by colleagues, and suggestions from participants in early administrations of the instrument. The items cover all discipline modalities addressed in several classic works on discipline (Dorr, Zax, & Bonner, 1983; Newson & Newson, 1963; Sears, Maccoby, & Levin, 1957) as well as more recent reviews and theoretical analyses of discipline (Eron, 1997; Larzelere & Kuhn, 2005; Socolar, Savage, Devellis, & Evans, 2004). The items can be examined independently, or they can be used to create nine scales such as Deprivation of Privileges and Psychological Aggression and into higher-order scales such as Power Assertion, Inductive Discipline, and Disciplinary Effort.

The nine scales were derived from *a priori* categories and reviews of existing literature. On the inductive side, Explain/Teach is a central aspect of inductive discipline and focuses on conveying standards for appropriate behavior to the child. Reward focuses on positive reinforcement of desirable behaviors. Ignore Misbehavior aims at extinguishing misbehavior through lack of attention or through natural consequences; it is non-punitive but is not considered inductive since parents do not take direct action to increase children's understanding. Among the power-assertive techniques are Corporal Punishment, involving physical punishment of misbehavior; Psychological Aggression, characterized by emotional or verbal punishment; and Deprivation of Privileges, focusing on punishment through loss of reinforcement. Several other

scales combine inductive and power-assertive elements: Diversion, including redirection and time out; Monitoring children by checking as well as warnings; and Penalty Tasks and Restorative Behavior, which can include inductive techniques like apology as well as punishments such as chores or making up for misbehavior.

Current Study

There are three forms of the DDI: Parent Report, Adult Recall, and Child Report. Across forms, item wording varies slightly (e.g., pronouns), but the content is consistent. The current study used the Adult Recall form to obtain descriptive data about fathers' and mothers' use of 26 discipline behaviors, based on university students' retrospective accounts of their preadolescence. These data permitted a preliminary investigation of the psychometric characteristics of the DDI and allowed us to compare the prevalence and frequency of fathers' and mothers' discipline behaviors. Prevalence is whether the parent had used a discipline behavior during the year covered by the study; frequency is how many times per year parents used each type of discipline. We hypothesized that:

1. Based on prior research indicating that mothers are more involved than fathers in child rearing, we hypothesized that mothers will show higher frequency than fathers of discipline in general. Because we anticipate that almost all parents will use some form of discipline, we do not have a hypothesis about a difference between mothers' and fathers' overall prevalence.
2. We hypothesized that mothers will show higher frequency than fathers for inductive discipline. Again, because we expected the vast majority of parents to use inductive discipline, we did not hypothesize a difference in prevalence.

3. We hypothesized that fathers will show higher frequency than mothers for power-assertive discipline. We did not hypothesize a prevalence difference.
4. Based on prior literature, we hypothesized that mothers would show higher prevalence and frequency than fathers for corporal punishment.

Because there is not sufficient literature on mothers' and fathers' use of many specific aspects of discipline, we conducted exploratory analyses on the remaining discipline scales and items.

METHODS

Procedure

Participants were recruited through the psychology subject pool at a state university in the northeastern United States; the pool consisted of a mix of students from introductory and upper-level psychology classes. The experimenter emailed information about the study and a link to the study website to participants who signed up for the study. Participants received instructions to complete the study in a private setting. They completed all measures anonymously through the website at a time and place of their own choosing. Several steps were taken to ensure anonymity of the electronic data, such as encryption of data, disabling "cookies," and separation of identifying information from data. All participants read the consent form and indicated their consent electronically. Participants completed the Dimensions of Discipline Inventory, as well as several other measures. After participants had completed all of the measures, they received a debriefing form explaining the purpose of the study and a list of mental health referrals. Participants received extra credit or partial course credit for completing the study. University and departmental Institutional Review Boards approved all procedures and measures.

Participants were randomly assigned to one of two conditions: reporting on events that happened when they were 10 years old or 13 years old. These conditions were designed to investigate the rates of various discipline practices at the two ages, as well as to explore participants' ability to recall the two ages. For most aspects of discipline the results for the two ages were comparable, but they did differ on some dimensions; in particular, there were more inductive behaviors reported for age 10 than for age 13. However, because age differences are not the focus of the present study, we combined the two groups.

Participants

Initially 522 students expressed interest in the study; of those, 507 participated in the study (97%). Four participants did not complete all measures in the study and were excluded; five additional participants were excluded due to large amounts of missing data, resulting in 498 participants (75.7% female). Participants were college-age (mean = 19.2, *SD* = 1.3). The sample was predominantly Caucasian (95.2%). At the time of data collection, 67% of the sample (*n*=336) reported that their biological parents were married; 27% (*n*=135) reported that their parents were currently separated, divorced, or never lived together; 3% (*n*=17) reported that one or both parents had died (*n*=6 prior to the referent period, *n*=11 subsequently); and 2% (*n*=9) were raised by adoptive parents. The majority of the sample (90%, *n*=449) reported on both biological parents; 6% (*n*=30) reported on one biological parent and one stepparent; 9 participants reported on adoptive parents; 1 participant reported on biological mother and grandmother; 9 participants reported only on the biological mother. All participants were included in analyses, but those reporting on only one parent were deleted case-wise from analyses comparing mothers and fathers. For the participant reporting on the grandmother, we

retained the data on mother but excluded the data about the grandmother rather than treating the grandmother as a "father."

Measures

The Dimensions Of Discipline Inventory (DDI) has five sections: (A) Demographic, (B) Child Misbehavior, (C) Discipline Behaviors, (D) Mode of Implementation/Context, and (E) Cognitive Appraisal. Only results from section C are presented in this article.

Discipline Behaviors. The DDI contains 26 items asking about the use of discipline behaviors. The 26 items together form the Disciplinary Effort scale, a measure of total discipline used. The response categories for the discipline behavior items, such as, "How often did your mother explain to you what the rules were to try to prevent you from repeating misbehavior?" are: N = Never; 0 = Not in that year, but in another year; 1 = 1 to 2 times in that year; 2 = 3 to 5 times in that year; 3 = 6 to 9 times in that year; 4 = Monthly (10 to 14 times in that year); 5 = A few times a month (2-3 times a month); 6 = Weekly (1-2 times a week); 7 = Several times a week (3-4 times); 8 = Daily (5 or more times a week); 9 = Two or more times a day. All 26 items are repeated for mother and father.

Composite Scales. Two *a priori* scales, Power Assertive Discipline and Inductive Discipline, are commonly distinguished in research on discipline. A factor analysis (see Table 1) supports the use of these two higher-order scales. In general, most items loaded onto their *a priori* factor and factor structure for fathers and mothers was similar. However, items 2, 18, 21, and 26 loaded onto the Power Assertive factor for mothers, but they loaded more strongly on the Inductive factor for fathers. We kept those items with the Power Assertive factor to maintain consistency with theory and with mothers' factor structure. However, it is notable that all of these items involve removal of privileges or penalty tasks; although they are technically

punishments, they may not imply the emotional elements of power assertion. Items 3, 8, 15, 17, 19, and 22 did not load highly on either factor and belong to neither the Power-Assertive nor Inductive scale.

In addition to the Inductive and Power Assertive scales, the 26 behaviors can be categorized into the following nine scales: Corporal Punishment, Deprivation of Privileges, Diversion, Explain/Teach, Ignore Misbehavior, Monitoring, Penalty Tasks and Restorative Behavior, Psychological Aggression, and Reward.

Scoring Methods. The items and scales were scored in three ways: prevalence, frequency, and chronicity. We created a score to measure *prevalence* in the referent year by combining "Never" and "Not in that year, but in another year" for a score of 0, with all other response choices scored as 1. To measure *frequency*, the response choices were recoded into a ratio scale reflecting the approximate number of times per year; for example, "Weekly" became a score of 50. Finally, we computed *chronicity* scores. This was necessary because the frequency score does not adequately describe the occurrence of low-base rate behaviors, for which most participants have a value of zero. By eliminating zero values, chronicity provides more appropriate information on the occurrence of each behavior only among those parents who used the behavior.

Perceived Recall Accuracy. Immediately following completion of the DDI, participants indicated how accurately they were able to remember their parents' discipline at the reference age. Responses to the single item used a 5-point scale: "1. I remembered very clearly," "2. I remembered pretty clearly," "3. I remembered in a general sense," "4. I remembered some things but forgot others," and "5. I had a hard time remembering what happened when I was age [10 or 13]."

Social desirability. Participants completed a social desirability measure, the Limited Disclosure (LD) scale of the Personal and Relationships Profile (Straus, Hamby, Boney-McCoy, & Sugarman, 1999). The 13-item LD scale is adapted from Reynolds' (1982) short form of the Marlow-Crowne scale (Crowne & Marlowe, 1960). The scale has an internal consistency alpha of .73 for the present sample.

Data Analytic Strategy

To control for participant sex, social desirability, and self-reported recall accuracy, we used those factors as covariates to calculate the means shown in Tables 2, 3, and 4; however, it should be noted that the uncorrected means and results were quite similar. To account for the number of significance tests, we used Bonferroni corrections. For Hypotheses 1, 2, and 3, we have retained *p*-values of .05. For Hypothesis 4 concerning corporal punishment (1 scale and 4 items), we set the *p*-value at .01. For the remaining eight scales, we set the *p*-value at .006. Because of the exploratory nature of the analyses of non-corporal punishment items, we also used a *p*-value of .006 for the remaining 22 items.

RESULTS

Overall Discipline

Almost all parents were reported to have used some form of corrective discipline during the referent year (98% of fathers and 100% of mothers; see Table 2). Contrary to Hypothesis 1, there was no significant difference between fathers' and mothers' overall frequency of discipline behaviors.

Inductive Discipline

Almost all parents reportedly used inductive discipline during the referent year (97% of fathers and 98% of mothers; see Table 2). Consistent with the second hypothesis, mothers used significantly more inductive behaviors (mean = 193.5 times in the referent year) than fathers (mean = 150.2; $F_{(1,478)} = 7.07$, $p = .008$).

Power-Assertive Discipline

Participants indicated that the vast majority of parents used power-assertive discipline during the referent year (92% of fathers and 96% of mothers; see Table 2). Contrary to Hypothesis 3, there was no significant difference between the frequency of fathers' and mothers' power-assertive discipline behaviors.

Corporal Punishment

Prevalence. Approximately one-third of parents used some aspect of corporal punishment during the referent year (33% of fathers and 38% of mothers; see Table 3). Contrary to Hypothesis 4, prevalence for fathers and mothers did not differ in terms of overall corporal punishment nor individual corporal punishment behaviors.

Frequency. Fathers used corporal punishment more often than mothers (mean for fathers = 16.6; mothers = 10.9; $F_{(1,474)} = 8.41$, $p = .004$). However, the gender pattern varied for different aspects of corporal punishment: fathers spanked and used an object more often than mothers did. However, mothers washed the child's mouth out with soap more often than fathers did. Mothers and fathers did not differ in frequency of shaking or grabbing the child.

Chronicity. Because a minority of the sample reported experiencing corporal punishment, we examined an additional measure, chronicity (see Methods). Chronicity focuses on the occurrence of each behavior only among those parents who used the behavior. Using chronicity data, participants reported that among those fathers who employed corporal punishment, they did

so an average of 48.7 times in the referent year – almost twice as often as mothers (mean = 27.4; $F_{(1,122)} = 14.15$, $p = .000$). In terms of specific forms of corporal punishment, fathers spanked more than twice as often as mothers (mean for fathers = 24.9, mothers = 11.6; $F_{(1,79)} = 10.64$, $p = .002$). The chronicity of object use was not significant, likely due to a lack of power to detect the effect. The difference in chronicity is striking, however, with an average of 61.5 times per year among those fathers who used an object, compared to a mean of 10.6 for mothers. Although frequency of washing the child's mouth out with soap was higher for mother than fathers, among those parents who did this, fathers' and mothers' chronicity did not differ. Fathers and mothers did not differ in their chronicity for shaking or grabbing children.

Other Discipline Behaviors

Table 3 presents the prevalence and frequency of all 26 DDI discipline behavior items, grouped according the scale for which they are scored. Prevalence rates ranged widely from 6% (sending child to bed without a meal) to 90% (explaining the rules). Frequency estimates also ranged widely from a mean of less than one time per year (sending to bed without a meal) to once per week (showing or demonstrating the right thing to do).

Prevalence. Mothers and fathers did not differ in their prevalence of most aspects of discipline; for the one behavior for which they differed, mothers had the higher prevalence rates. Mothers were more likely (mean = 86%; see Table 3) to make the child apologize than fathers (mean = 79%; $F_{(1,404)} = 8.25$, $p = .004$). Mothers and fathers did not differ significantly in the prevalence of any other aspects of discipline prevalence.

Frequency. There were several differences between fathers' and mothers' discipline frequencies. Mothers used Deprivation of Privileges more often than fathers (see Table 3), particularly withholding privileges. Mothers used penalty tasks and restorative behavior more

frequently than fathers, particularly giving extra chores as a consequence. Mothers also called children names twice as often as fathers.

Chronicity. The chronicity difference between fathers and mothers parallel the differences in the frequency of each discipline behavior and scale. However, there are differences in the magnitude of chronicity and frequency, particularly for the lower base-rate behaviors. Table 4 depicts the chronicity results for all items and scales. Because of the smaller degrees of freedom for chronicity and the likelihood of Type II error, we have used an uncorrected *p*-value of .05.

Ever Used

In addition to the methods of scoring depicted in Tables 2, 3, or 4, the DDI can be scored for whether a parent has used a discipline technique at any point, not only in the referent year. As would be expected, more parents have used each technique at some point in the child's life than in the single referent year. The incremental difference varies from 4% to 150% for items and from less than 1% to 54% for scales. For example, 27% of participants reported having been spanked by their mothers during the referent year; 43% reported their mothers having ever spanked them, an increase of 59%. The relative increase is particularly large for some low base-rate items; for example, 10% of participants report that their mothers washed their mouths out with soap during the referent year; 25% report mothers ever having done it, an increase of 150%.

DISCUSSION

Overall, university students reported high levels of discipline by fathers and mothers during preadolescence, which we interpret as an indication of parents fulfilling their socialization responsibilities. Mothers used inductive discipline more often than fathers. Participants also reported that mothers more often employed discipline techniques such as deprivation of

privileges, penalty tasks, and name-calling. For most aspects of discipline, however, mothers and fathers did not differ in their prevalence, frequency, or chronicity. This suggests that, on average, young adults perceive their fathers and mothers as having been equally involved in discipline during the preadolescent period. These data paint fathers as being more actively involved in childrearing than many previous studies (e.g., Hart & Robinson, 1994; Power et al., 1994; Russell et al., 1998). It is unclear to what extent this difference is attributable to the target age as opposed to possible changes in parenting practices due to cohort.

Corporal Punishment

Mothers and fathers did not differ in the prevalence of using corporal punishment, but they did differ in the number of times they used corporal punishment. Contrary to the findings for other aspects of discipline, fathers employed some aspects of corporal punishment (spanking and using an object) more often than mothers. However, mothers washed children's mouths out with soap more often, and mothers and fathers shook or grabbed children at similar rates. Compared to the more typically used frequency and prevalence data, chronicity provides additional information on differences between mothers' and fathers' use of corporal punishment. Taking hitting a child with an object such as a belt or hairbrush as an example, 6% of fathers did this within the referent year, and 11% used it at some point during the respondent's entire childhoods. Average frequency was low, with fathers using an object to discipline children 3.8 times per year because 94% of the fathers did not do this and therefore had a score of zero. However, the fathers who used an object during the referent year did so an average of 61.5 times.

These chronicity data indicate that a small proportion of preadolescents are undergoing frequent severe corporal punishment. At the same time, the entire corporal punishment scale (which includes less severe forms of corporal punishment) shows that about a third of these

preadolescents were subjected to corporal punishment, despite being beyond the age when even defenders of corporal punishment believe that it is acceptable – age 6 according the consensus statement issued by participants at an American Academy of Pediatrics conference on discipline (Friedman & Schonberg, 1996).

Limitations

Use of a university student sample necessitated a reliance on retrospective recall of events that happened several years earlier. We could not establish the accuracy of those recollections, either through comparison of reports to those of other family members or through measurement at the time of the referent periods. Asking participants to count how many times per year an event happened 5 or 10 years earlier is highly likely to be less accurate than asking about a more recent period; however, frequency counts with consistent anchor points, such as those used by the DDI, are still more likely to produce accurate results than general ratings that different participants will interpret differently, such as “sometimes” or “usually.” Furthermore, additional data collected from these participants (Fauchier, 2007) suggests that from their perspective, the majority of them had accurate and clear recollections of discipline during the target period (8% remembered very clearly; 34% remembered pretty clearly; 41% generally remembered; 9% remembered some things but forgot others; 7% had a hard time remembering).

The study focused on the preadolescent period because it was more likely than earlier periods to elicit accurate recall. However, the nature of discipline during preadolescence is markedly different from discipline at younger ages. The present findings about differences between mothers and fathers cannot be extended to other developmental periods. Child age has a strong influence on discipline usage: some techniques such as removal of privileges and yelling increase as children get older, whereas other techniques such as time-out and spanking decrease

over time (Barkin, Scheindlin, Ip, Richardson, & Finch, 2007; Straus & Stewart, 1999). The difference between the amount of time mothers and fathers spend with children decreases as children age (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001) and differences in discipline practices may show a corresponding decrease over the course of childhood. In addition, caution must be used in applying these findings based on retrospective data to families whose children are currently preadolescents.

Conclusions

The DDI. The results suggest that the DDI has promise for enhancing research on discipline. Part of the promise lies in the wider range of corrective disciplinary behaviors than is covered in other instruments, and specific detail about each mode of discipline. For example, examination of specific corporal punishment behaviors revealed that mothers and fathers appear to use different types of corporal punishment. Almost all mothers and fathers employ both inductive and power-assertive techniques; this combination, rather than either type alone, is the most likely to result in effective management of child misbehavior (Larzelere et al., 1998). However, the study also found that a small proportion of parents, particularly fathers, frequently used severe corporal punishment. Future studies using the DDI can determine how those parents compare to parents who do not employ severe corporal punishment in terms of other discipline behaviors, contextual factors, and mode of implementing discipline; in turn, such findings can shed light on parental risk and protective factors for children experiencing corporal punishment.

Practice Implications. These results also have important implications for parent education, highlighting areas where a differential approach to fathers and mothers might be useful. For example, since fathers use fewer inductive behaviors relative to mothers, parent education for fathers could particularly emphasize inductive techniques. Fathers are more likely

than mothers to use severe forms of corporal punishment such as using a belt or hairbrush for corporal punishment. In light of the evidence linking corporal punishment to child behavior problems (Gershoff, 2002) and physical abuse (Straus, 2001), professionals working with both fathers and mothers should pay particular attention to the potential dangers of such discipline. Psychologically aggressive techniques such as name-calling and shouting are also quite common. However, most university students also recalled their fathers and mothers using positive techniques such as explanation and praise, and most parents are reported to have employed a large repertoire of discipline behaviors. When children misbehave, as they invariably do, most parents appear to be quite resourceful and flexible in their approaches to discipline.

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Table 1. Factor Loadings of DDI Discipline Items Using Two-Factor Solution

Item	Fathers		Mothers	
	1: Power-Assertive	2: Inductive	1: Power-Assertive	2: Inductive
5. Shake or grab child	**.90**	-.10	**.88**	-.14
10. Use a paddle, hairbrush, belt, or other object	**.84**	-.20	**.64**	-.11
9. Spank, slap, smack, or swat child	**.81**	-.14	**.83**	-.19
7. Try to make child feel ashamed or guilty	**.59**	.10	**.75**	-.04
4. Shout or yell at child	**.56**	.21	**.72**	-.05
20. Tell child they are lazy, sloppy, thoughtless, or some other name like that	**.54**	.08	**.70**	-.08
12. Hold back affection by acting cold or not giving hugs or kisses	**.61**	-.27	**.65**	-.18
13. Send child to bed without a meal	**.64**	.03	**.47**	.14
25. Wash child's mouth out with soap, put hot sauce on tongue, or something similar	**.40**	.18	**.54**	.07
26. Ground child or restrict activities outside the home	**.28**	*.48*	**.59**	.20
2. Take away allowance, toys, or other privileges	**.23**	*.53*	**.47**	.36
18. Give child extra chores as a consequence	**.20**	*.51*	**.42**	.33
21. Withhold allowance, toys, or other privileges until child does something	**.20**	*.60*	**.41**	.44
23. Check on child so that parent could tell them that they were doing a good job	-.27	**.75**	-.23	**.74**
24. Make child apologize or say they were sorry for misbehavior	-.06	**.70**	.14	**.48**

Table 1, cont'd.

Item	Fathers		Mothers	
	1: Power-Assertive	2: Inductive	1: Power-Assertive	2: Inductive
22. Check on child to see if they are misbehaving	.09	**.67**	.27	**.45**
11. Praise child for finally stopping bad behavior or for finally behaving well	-.23	**.58**	-.33	**.65**
14. Tell child that parent was watching or checking to see if the child did something	.05	**.64**	.21	**.44**
16. Show or demonstrate the right thing to do	-.36	**.62**	-.35	**.59**
1. Explain rules to try to prevent child repeating misbehavior	-.15	**.53**	.06	**.45**
6. Give child something else they might like to do instead of what they were doing wrong	.11	**.47**	.10	**.46**
3. Put child in "time out" or send to room	.36	.44	.42	.30
8. Deliberately not pay attention to misbehavior	.47	-.06	.40	.13
15. Give child money or other things for finally stopping bad behavior or behaving well	.19	.33	-.03	.45
17. Let child misbehave so they would have to deal with the results	.21	.28	.10	.34
19. Make child do something to make up for misbehavior; for example, pay for broken window	.26	.43	.30	.34

Note. Principal axis factoring with promax rotation.

Italics indicate that item loading was higher for Factor 2, but that the item has been retained in Factor 1 for theoretical reasons and to maintain consistency between fathers and mothers.

Table 2. Prevalence and Frequency of Disciplinary Effort, Inductive Discipline, and Power-Assertive Discipline.

	Prevalence		Frequency *(SD)*		Items
	Father	Mother	Father	Mother	
Disciplinary Effort (α = .90 fathers, α = .89 mothers)	98%	100%	292.3 (513.8)	382.8 (632.6)	1 through 26
Inductive Discipline (α = .81 fathers, α = .79 mothers)	97%	98%	150.2 (263.5)	193.5 (297.6)*	1, 6, 11, 14, 16, 23, 24
Power-Assertive Discipline (α = .88 fathers, α = .89 mothers)	92%	96%	105.7 (323.3)	129.1 (351.9)	2, 4, 5, 7, 9, 10, 12, 13, 18, 20, 21, 25, 26

* $p < .05$

Table 3. Prevalence and Frequency of DDI Discipline Behaviors and Scales for Fathers and Mothers.

	Prevalence		Frequency *(SD)*	
	Father	Mother	Father	Mother
Corporal Punishment (α = .80 fathers, α = .81 mothers)	**33%**	**38%**	**16.6 (119.0)**	**10.9 (58.8)****
5. Shake or grab child	24%	25%	6.1 (42.4)	5.7 (41.0)
9. Spank, slap, smack, or swat child	23%	27%	5.8 (49.1)	3.2 (16.8)**
10. Use a paddle, hairbrush, belt, or other object	6%	6%	3.8 (46.1)	0.7 (4.2)**
25. Wash child's mouth out with soap, put hot sauce on tongue, or something similar	7%	10%	0.6 (3.9)	1.2 (10.9)**
Deprivation of Privileges (α = .74 fathers, α = .75 mothers)	**75%**	**83%**	**18.9 (48.9)**	**28.0 (74.0)** *
2. Take away allowance, toys, or other privileges	65%	72%	6.2 (15.8)	8.9 (24.4)
13. Send child to bed without a meal	7%	6%	0.5 (3.6)	0.5 (3.4)
21. Withhold allowance, toys, or other privileges until child does something	53%	62%	7.0 (27.3)	9.8 (34.8)*
26. Ground child or restrict activities outside the home	52%	63%	5.0 (22.2)	10.4 (49.7)
Diversion (α = .52 fathers, α = .55 mothers)	**70%**	**77%**	**14.1 (52.1)**	**20.7 (67.9)**
3. Put child in "time out" or send to room	53%	62%	7.5 (46.1)	9.9 (42.5)
6. Give child something else they might like to do instead of what they were doing wrong	53%	59%	6.7 (24.2)	11.0 (47.0)

Table 3 cont'd.

	Prevalence		Frequency *(SD)*	
	Father	Mother	Father	Mother
Explain/Teach (α = .53 fathers, α = .51 mothers)	**93%**	**96%**	**70.0 (155.7)**	**82.7 (154.8)**
1. Explain rules to try to prevent child repeating misbehavior	86%	90%	22.9 (60.8)	31.6 (74.6)
16. Show or demonstrate the right thing to do	80%	84%	44.7 (119.2)	51.4 (125.2)
Ignore Misbehavior (α = .52 fathers, α = .55 mothers)	**48%**	**47%**	**8.7 (43.6)**	**9.0 (51.2)**
8. Deliberately not pay attention to misbehavior	28%	29%	5.9 (41.4)	6.4 (49.2)
17. Let child misbehave so they would have to deal with the results	36%	36%	2.9 (10.9)	2.6 (6.8)
Monitoring (α = .66 fathers, α = .61 mothers)	**65%**	**73%**	**21.0 (83.9)**	**30.1 (106.5)**
14. Tell child that parent was watching or checking to see if the child did something	50%	59%	7.2 (38.5)	10.5 (44.8)
22. Check on child to see if they are misbehaving	49%	55%	13.9 (71.5)	19.7 (82.6)
Penalty Tasks and Restorative Behavior (α = .68 fathers, α = .61 mothers)	**81%**	**88%**	**33.1 (89.4)**	**46.6 (109.3)** *
18. Give child extra chores as a consequence	52%	62%	8.2 (39.0)	11.7 (45.7) *
19. Make child do something to make up for misbehavior; for example, pay for broken window	44%	48%	3.3 (17.0)	4.2 (21.1)
24. Make child apologize or say they were sorry for misbehavior	79%	86%*	24.7 (70.6)	34.9 (89.7)

Table 3 cont'd.

	Prevalence		Frequency *(SD)*	
	Father	Mother	Father	Mother
Psychological Aggression (α = .74 fathers, α = .81 mothers)	**85%**	**89%**	**60.3 (204.2)**	**89.0 (282.4)**
4. Shout or yell at child	76%	82%	21.8 (76.6)	34.9 (107.0)
7. Try to make child feel ashamed or guilty	53%	57%	10.7 (61.7)	17.8 (74.7)
12. Hold back affection by acting cold or not giving hugs or kisses	23%	26%	17.2 (91.0)	15.3 (84.1)
20. Tell child they are lazy, sloppy, thoughtless, or some other name like that	46%	48%	10.8 (56.1)	21.3 (89.4) *
Reward (α = .61 fathers, α = .60 mothers)	**81%**	**85%**	**49.4 (130.9)**	**58.9 (144.2)**
11. Praise child for finally stopping bad behavior or for finally behaving well	69%	73%	18.4 (68.8)	23.8 (82.3)
15. Give child money or other things for finally stopping bad behavior or behaving well	28%	32%	2.8 (14.2)	2.5 (10.8)
23. Check on child so that parent could tell them that they were doing a good job	63%	67%	27.7 (93.0)	32.0 (98.9)

Note. * $p < .006$, Bonferroni-corrected p-value for non-corporal punishment aspects of discipline. ** $p < .01$, Bonferroni-corrected *p*-value for corporal punishment.

Degrees of freedom for all scales and items 1 through 23 vary from 467 to 479 due to missing data; in addition, only a subset of the sample completed items 24 ($df = 404$), 25 ($df = 391$), and 26 ($df = 277$) because those items were added in response to participants' suggestions during the course of data collection.

Table 4. Chronicity of DDI Discipline Behaviors and Scales for Fathers and Mothers

	Father	Mother
Corporal Punishment	**48.7 (201.7)**	**27.4 (91.9)****
5. Shake or grab child	25.3 (84.0)	23.0 (80.1)
9. Spank, slap, smack, or swat child	24.9 (99.3)	11.6 (30.7)**
10. Use a paddle, hairbrush, belt, or other object	61.5 (177.4)	10.6 (13.3)
25. Wash child's mouth out with soap, put hot sauce on tongue, or something similar	9.3 (12.2)	11.9 (32.1)
Deprivation of Privileges	**22.1 (48.2)**	**30.2 (75.5)***
2. Take away allowance, toys, or other privileges	9.6 (18.8)	12.3 (28.0)
13. Send child to bed without a meal	8.2 (11.5)	7.4 (11.4)
21. Withhold allowance, toys, or other privileges until child does something	13.1 (36.3)	16.0 (43.3)*
26. Ground child or restrict activities outside the home	9.6 (30.1)	16.4 (61.9)
Diversion	**20.0 (61.3)**	**26.8 (76.5)**
3. Put child in "time out" or send to room	14.1 (62.5)	16.0 (53.1)
6. Give child something else they might like to do instead of what they were doing wrong	12.6 (32.1)	18.8 (60.2)
Explain/Teach	**72.2 (145.7)**	**86.2 (157.2)**
1. Explain rules to try to prevent child repeating misbehavior	26.7 (64.8)	34.9 (77.7)
16. Show or demonstrate the right thing to do	56.2 (131.2)	61.1 (134.3)

Table 4 cont'd.

	Father	Mother
Ignore Misbehavior	**18.2 (61.8)**	**19.3 (73.8)**
8. Deliberately not pay attention to misbehavior	20.9 (76.4)	22.5 (90.4)
17. Let child misbehave so they would have to deal with the results	7.9 (17.0)	7.2 (9.7)
Monitoring	**32.4 (102.7)**	**40.9 (122.7)**
14. Tell child that parent was watching or checking to see if the child did something	14.4 (53.7)	17.9 (57.3)
22. Check on child to see if they are misbehaving	28.4 (100.4)	35.5 (108.5)
Penalty Tasks and Restorative Behavior	**39.8 (97.5)**	**51.5 (114.2)**
18. Give child extra chores as a consequence	15.8 (53.2)	18.9 (56.9)*
19. Make child do something to make up for misbehavior; for example, pay for broken window	7.6 (25.2)	8.9 (29.9)
24. Make child apologize or say they were sorry for misbehavior	31.4 (78.3)	40.8 (95.7)
Psychological Aggression	**70.2 (218.8)**	**99.2 (296.7)**
4. Shout or yell at child	28.5 (86.6)	42.6 (117.0)
7. Try to make child feel ashamed or guilty	20.2 (83.8)	31.1 (96.9)
12. Hold back affection by acting cold or not giving hugs or kisses	76.5 (180.1)	59.0 (157.7)
20. Tell child they are lazy, sloppy, thoughtless, or some other name like that	23.8 (81.3)	44.2 (124.8)

Table 4 cont'd.

	Father	Mother
Reward	**59.5 (137.4)**	**67.7 (149.1)**
11. Praise child for finally stopping bad behavior or for finally behaving well	26.7 (81.6)	32.4 (94.7)
15. Give child money or other things for finally stopping bad behavior or behaving well	10.0 (25.6)	7.8 (18.0)
23. Check on child so that parent could tell them that they were doing a good job	43.8 (114.0)	47.6 (117.5)
Inductive Discipline	**152.3 (263.3)**	**192.2 (294.7)***
Power-Assertive Discipline	**109.0 (323.4)**	**141.9 (381.0)**

Note. * $p < .05$, uncorrected *p*-value.

** $p < .01$, Bonferroni-corrected *p*-value for corporal punishment.

Degrees of freedom vary from 14 to 471 because chronicity reflects only those parents who performed the behavior during the referent year; paired t-tests for chronicity were conducted only with families in which both parents had used that type of discipline.