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CP3

4 Corporal punishment of children and adult depression and suicidal ideation

MURRAY A. STRAUS

Since the pioneering study of Elmer and Gregg (1967) there has been increasing recognition that the damage to children from physical "abuse" can involve more than broken bones and burns. There is compelling evidence that physically abused children also tend to suffer serious psychological injury and are at greater risk of engaging in crime (Egeland, Sroufe, & Erickson, 1983; McCord, 1988; Widom, 1989; Wolfe, 1987). However, the idea that ordinary and legal corporal punishment of a misbehaving child may also increase the probability of delinquency and later marital and psychological problems is seldom voiced in the United States. That should not be surprising because spanking and other forms of corporal punishment of children are routine events that are legal and for the most part expected of parents (Straus, 1991).¹ Moreover, there are deeply ingrained psychological and cultural reasons why the possible harmful effects of corporal punishment are not perceived (Carson, 1987; Greven, 1991; Straus, 1994).

As a result of this combination of legal and moral legitimacy and psychological commitment, the general public and social scientists assume that corporal punishment is *not* an important social or psychological problem. The underlying assumption of this chapter is the opposite. It is that corporal punishment puts a child at risk of serious injury, both physical and psychological. To the extent that this assumption is correct, the wide use of corporal punishment is a major problem of U.S. society. Evidence that corporal punishment increases the probability of later physical violence by the child was presented in a previous paper (Straus, 1991). This chapter takes the investigation of the harmful effects of corporal punishment one step further by testing the hypothesis that the more corporal punishment experienced as a child, the greater the probability of depression and suicidal thoughts as an adult.

Corporal punishment and depression

Depression is one of the most frequently occurring mental health problems. Depression that is serious enough to require clinical intervention is estimated to affect at least 1%, or about a million Americans (Charney & Weissman, 1988), and some estimates are 6% of the population (Holden, 1991). Less debilitating but still serious depression affects a much larger number. Although depression is a widespread and ancient human problem, as well as the subject of voluminous research, the relationship between corporal punishment and depression seems to have been ignored by psychologists, psychiatrists, and sociologists. Freud's essay "A Child Is Being Beaten" (1919), for example, is in a "Contribution to the Study of the Origin of Sexual Perversions," not the origin of depression. Moreover, the essay is about *fantasies* of being beaten. Freud denied the significance of actual beatings.² Nevertheless, Freud believed that "we have long known that no neurotic harbors thoughts of suicide which are not murderous impulses against others re-directed upon himself" (quoted in Greven, 1991, p. 129).

The lack of empirical research on the link between corporal punishment and depression is probably not accidental. It seems to be a case of "selective inattention," as was the lack of research on wife beating until the women's movement forced the issue into the public agenda. In the case of wife beating, the perceptual blinders were part of the selective perception of a male dominant society. In the case of corporal punishment, Greven (1991) suggests that the perceptual blinders are a result of the almost universal early experience with corporal punishment. On the basis of extensive historical data Greven (1991) concluded that corporal punishment has been ignored precisely because close to 100% of Americans are products of that system. He argues that the morality of corporal punishment is built into the deepest layers of personality by repeated exposure to it by persons the infant or toddler loves and depends on for survival. Ironically, the effect might be even more powerful for the fortunate few Americans whose parents stopped spanking after age 4 because experiences before age 3 or 4 are seldom part of conscious memory. The traumatic experience of being attacked by a parent as an infant or toddler might therefore tend to be an unconscious but powerful and continuing part of the psyche.

Corporal punishment also does not figure prominently in the thinking of the few sociologists who have studied children or even of child psychologists. My analysis of 10 of the leading child psychology textbooks found that they devoted an average of only half a page to corporal punishment despite the fact that it is an almost universal part of the socialization experience. In addition, little thought is given to the harm that corporal punishment might produce and the processes that might produce later harmful effects such as physical aggression and depression. In short, there has been no theory. The lack of empirical research on corporal punishment and depression therefore also reflects the fact that, until recently, there has been no

theory positing such a relationship. However, Greven (1991) presents just such a theory.

Greven's theory holds that "depression often is a delayed response to the suppression of childhood anger . . . from being physically hit and hurt . . . by adults . . . whom the child loves and on whom he or she depends for nurturance and life itself" (Greven, 1991, p. 129). Greven's theory, and his most compelling evidence, involve the religious tradition of Calvinism and evangelical Protestantism. He provides abundant evidence that "melancholy and depression have been persistent themes in the family history, religious experience, and emotional lives of Puritans, evangelicals, fundamentalists and Pentecostals for centuries." Greven also provides extensive historical evidence on the frequency and severity of corporal punishment among these devout Protestants. He then argues:

The long-sustained persistence of melancholy and depression among twice-born Protestants is clearly no accident, since it has consistently been paralleled by the tradition of assault, coercion, and violence against children committed with the rod, the belt, the hand and other such instruments of parental discipline. . . . From all this historical evidence, it ought to be clear that depression is often the central mood characteristic of adults whose bodies were assaulted, whose wills were broken in childhood, and whose anger was forcibly suppressed. The rage and resentment never disappear; they just take more covert and dangerous forms, dangerous to the self, and potentially to others.

Depression rooted in anger remains so potent because it often begins so early — in the first three years of life, precisely the period corporal punishment advocates have always stressed as critical for the start of physical punishments. . . . The first assaults on children's bodies and spirits generally commences before conscious memory can recall them later. The unconscious thus becomes the repository of rage, resistance, and desire for revenge that small children feel when being struck by the adults they love. . . . Though they cannot remember consciously what happened to them during the first three or four years of life, the ancient angers persist while the adult conscience directs rage inward upon the self. These people hurt themselves just as their parents hurt them. (pp. 131–132)

Greven's theory is a highly plausible interpretation of the rich historical evidence he presents. However, although the evidence on the frequency of corporal punishment and depression among fundamentalists is clear, he does not provide empirical evidence showing that it is the corporal punishment that accounts for the depression, or even that the two are correlated. A test of Greven's theory using historical evidence is possible, at least in principle because even fundamentalist Protestants varied widely in their use of corporal punishment. Consequently, it might be possible to investigate whether depression occurred at a higher rate among those who experienced the most corporal punishment. Greven does not provide that type of data, and it may not be possible to do so. However, his theory can also be tested using data on contemporary families. The research reported in this chapter does that by examining the extent to which the experiences of people who participated in the 1985 National Family Violence Survey correspond to Greven's theory.

Method

Sample

A unique aspect of this study is that it is based on a large and nationally representative sample of U.S. couples interviewed for the 1985 National Family Violence Survey (Straus & Gelles, 1986, 1990). Interviews with the 6,002 respondents were conducted by telephone in the summer of 1985 (for information regarding the validity of telephone interviews in this survey, see Straus & Gelles, 1986, p. 472). To be eligible for inclusion, the respondent had to be age 18 or older and either (1) presently married, (2) presently living as a man-woman couple, or (3) a single parent with a child under 18 living with the parent, including divorced or separated parents. The response rate was 84%. Of the 6,002 respondents, between 4,745 and 5,700 had no missing data on the variables needed for the different analyses to be reported. Further information on the sampling design and the characteristics of the sample is given in Straus and Gelles (1986, 1990).

Measure of corporal punishment

Respondents were asked: "Thinking about when you yourself were a teenager, about how often would you say your mother or stepmother used corporal punishment, like slapping or hitting you? Think about the year in which this happened the most. Never, Once, Twice, 3-5 times, 6-10 times, 11-20 times, More than 20 times." This was followed by a parallel question asking about the corporal punishment the respondent experienced at the hands of his or her father. This is far from an ideal measure because the validity and reliability of recall data on events that took place many years earlier is questionable. Consequently, there is a need to consider the validity of the data.

Validity of the corporal punishment data

Selective recall. Selective recall could threaten the validity of the findings if those who develop psychological problems tend to remember more negative things about their childhood, such as having been hit as a teen, even though such punishment did not happen to them any more often than to those without psychological problems. That possibility is less likely because the percentage of people recalling being hit by a parent during adolescence is almost identical to the percentage of parents who reported hitting an adolescent during the year of the survey (Straus, 1983; Straus & Donnelly, 1993; Wauchope & Straus, 1990), and with corresponding percentages from studies based on interviews with teenage children reviewed in Straus and Donnelly (1993).

Statistically deviant. The data to be presented and those from previous studies indicate that half or more of adolescent children are hit by their parents. This

indicates that the respondents in this study who were corporally punished during their teen years, since they are at least half of all American children, represent the modal situation, not a small and highly deviant subset of all teenagers.

Deviance in the normative sense. Many surveys show that over 80% of the population approves of corporal punishment, and many show approval rates in the 90% range (Straus, 1991). Unfortunately, the age of the child is not specified in those surveys and the approval rates are likely to be lower for hitting a 13- or 14-year-old. However, the New Hampshire child abuse survey (Moore & Straus, 1987) asked a representative sample of 914 New Hampshire parents if they agreed or disagreed with the statement "Sometimes it's a good idea for parents to slap their teenage child who talks back to them." Thirty-one percent agreed, 23% were neutral or "mildly disagreed," and only 46% strongly disagreed. I suggest that almost all of the 54% who did not "strongly disagree" really agreed at least somewhat. If this is correct, hitting a teenage child is far from a normatively deviant type of behavior.

The unique effects of corporal punishment of adolescents. It is possible that findings based on corporal punishment during adolescence may not apply to corporal punishment experienced as a toddler or young child. Concern over this potential source of error is somewhat mitigated by the results of previous research that indicates that corporal punishment of even very young children is associated with increased rates of such problematic behavior as physical aggressiveness and limited development of an internalized conscience (Sears, Maccoby, & Levin, 1957), as well as increased interpersonal problems with other children, delinquency, and aggression (Straus, 1991, in press; Vissing, Straus, Gelles, & Harrop, 1991).

Measures of depression

Depressive symptoms. Identifying who is depressed in a large cross-sectional sample of Americans is a difficult and controversial task. The method used in the 1985 National Family Violence Survey is based on the Psychiatric Epidemiological Research Instrument, or PERI (Dohrenwend, Kranoff, Askenasy, & Dohrenwend, 1976). The PERI provides data on a number of different psychiatric problems and is much longer than could be included in the half-hour interviews we conducted. The measure of depression that we used consists of the following four PERI items that Newman (1984) found to be most indicative of depression:

- Been bothered by feelings of sadness or depression.
- Felt very bad and worthless.
- Had times when you couldn't help wondering if anything was worthwhile anymore.
- Felt completely hopeless about everything.

Respondents were asked to indicate how often in the past year each of these things occurred using the following categories: Never = 0, Almost never = 1,

Sometimes = 2, Fairly often = 3, Very often = 4. These items were factor analyzed using the SPSS principal components program. The analysis found a single factor that accounted for 66% of the variance. The Depressive Symptoms Index used for this study is the factor-weighted sum of these four items and has an alpha coefficient of reliability of .82.

Suicidal ideation. Suicidal thoughts often accompany depression but are a separate phenomenon. Consequently we asked our respondents if they had "thought about taking your own life" in the previous 12 months. The response categories Yes and No were coded as 1 and 0.

Measurement of covariates

The analyses described later controlled for four variables that are known to be confounded with corporal punishment, depression, or both. Socioeconomic status (SES) was measured by factoring the following five items using the SPSS/PC principal components analysis: education of the wife and the husband, their occupational prestige scores, and the combined income of the couple. This resulted in one factor that explained 56% of the variance and has an alpha reliability coefficient of .80. *Heavy drinking* was measured by the top two categories of the *Drinking types* described in Kaufman Kantor and Straus (1987). Marital violence was coded as being present if, in response to the violence scale of the Conflict Tactics Scales (Straus, 1979, 1990), the respondent reported one or more violent incidents in the 12 months prior to the interview. Witnessing violence between parents was measured by asking respondents, "Now, thinking about the whole time when you were a teenager, were there occasions when your father/stepfather hit your mother/stepmother or threw something at her?" If the respondent answered affirmatively, he or she was then asked to indicate "How often did that happen" using the following response categories: once, twice, 3–5 times, 6–10 times, 11–20 times, and more than 20 times. This question was then repeated for witnessing violence by the mother or stepmother and the two scores were summed.

Specification of the model to control for confounding with other variables

Many risk factors, such as SES and gender, have been linked to depression in addition to the hypothesized effect of corporal punishment. Unless such variables are controlled, the findings might be spurious. For example, low-SES parents use somewhat more corporal punishment (Straus, 1994), and low-SES persons also have a higher rate of most types of psychological problems (Dohrenwend et al., 1992). This confounding could produce an association between corporal punishment and depression even if corporal punishment does not increase the probability of depression. Consequently, a 7×2 analysis of covariance was used. The 7-level variable is

corporal punishment ranging in frequency from never to 20 or more times. The two-level variable is gender of the subject. For the reasons already noted, the following four covariates were included: heavy drinking, marital violence, witnessing violence between parents, and SES.

Four analyses of covariance were computed. The first used scores on the Depressive Symptoms Index as the dependent variable and the frequency of being corporally punished by the father as the main independent variable. The second repeated this but with corporal punishment by the mother as the independent variable. The third and fourth analyses were identical except that the dependent variable was the percentage who thought about committing suicide during the preceding 12 months.

Eight other analyses of covariance were computed. They follow the same pattern but the dependent variables were the four indicators making up the Depressive Symptoms Index.

Replication using logistic regression

The hypotheses concerning *depressive symptoms* and *suicidal ideation* were replicated using logistic regression or "logit" (Aldrich & Nelson, 1984). These replications provide information on the robustness of the findings and also a somewhat different approach to the measure of depressive symptoms. The approach is different because the logit analysis used as the dependent variable a dichotomized version of the Depressive Symptoms Index. A division point at the 90th percentile was chosen because, as noted by Jacobson and Revenstorf (1988), the important issue, both theoretically and clinically, is the occurrence of a high or chronic level of depressive symptoms. The results were graphed using the conditional-plotting technique developed by Hamilton (1990).

Prevalence and chronicity of corporal punishment

Prevalence

The percentages in the top row of Table 4.1 headed "By either" show that about half of all Americans can recall corporal punishment during their teen years and that more teenage sons are hit than daughters. The remaining percentages in the top row show that more sons are hit than daughters, regardless of whether the hitting is done by the mother or the father.³ As previously noted, these rates are very close to those obtained by interviewing parents of teenage children (Straus & Donnelly, 1993; Wauchope & Straus, 1990).

Table 4.1 also shows that there is little difference in the percentage of mothers and fathers who hit a teenage son. However, when it comes to hitting daughters, 26.7% of fathers did so, compared with 35.6% of mothers, which is a 33% higher rate.⁴

Table 4.1. *Prevalence and chronicity of corporal punishment of teens by gender of parent and child*

Frequency	Corporal punishment					
	By either		By mother		By father	
	Daughter	Son	Daughter	Son	Daughter	Son
Annual prevalence						
Percent hit once or more	44.0	58.2	35.6	43.5	26.7	44.8
N	3,337	2,099	3,504	2,216	3,434	2,171
Annual chronicity						
<i>Descriptive statistics</i>						
Mean	6.6	8.1	5.6	6.5	4.6	5.4
SD	7.5	8.0	6.9	7.1	6.3	6.6
Median	4.0	4.0	2.0	4.0	2.0	2.0
<i>Percentage distributions</i>						
Once	23.2	17.3	28.8	20.6	41.5	30.9
Twice	19.8	15.8	22.5	19.3	21.6	20.0
3-5 times	25.0	23.6	22.9	28.8	17.3	24.1
6-10 times	13.5	17.8	10.6	12.9	8.1	10.9
11-20 times	7.8	11.6	7.0	9.3	5.2	7.0
21+ times	10.8	13.8	8.3	9.1	6.3	7.1
N for chronicity	1,474	1,213	1,270	970	895	952

Chronicity. Among those who experienced corporal punishment, the section headed "Annual chronicity" in Table 4.1 shows that in the majority of the cases it occurred more than once during the referent year. Twenty-six percent of the women recalled six or more incidents of having been hit by their mother and 20% having been hit this often by their father. Thirty-one percent of the men recalled having been hit as a teen six or more times by their mother and a quarter having been hit this often by their father.

Corporal punishment and depressive symptoms

Corporal punishment by mothers

Table 4.2 gives the results of the analyses of covariance to test the hypothesis that the more corporal punishment, the higher the Depression Symptom Index score, and Figure 4.1 plots the findings. As with many other studies, the women's

Table 4.2. *Depressive Symptoms Index by corporal punishment, analysis of covariance*

Source of variance	df	Corporal punishment by			
		Mother		Father	
		F	p <	F	p <
<i>Main effects</i>					
Corporal punishment	6	10.54	.001	5.57	.001
Gender of respondent	1	108.81	.001	113.33	.001
<i>Interaction effect</i>					
Corporal punishment by gender	6	1.05	.391	1.83	.089
<i>Covariates</i>					
Socioeconomic status	1	37.02	.001	38.37	.001
Husband-to-wife violence	1	167.66	.001	163.32	.001
Heavy drinking	1	0.02	.899	0.29	.594
Violence between respondent's parents	1	42.74	.001	40.55	.001

Depressive Symptoms Index score is higher than the men's. For the men, there is a clear tendency for depressive symptoms to increase with each increment of corporal punishment. For the women in this sample, the slope starts out even more steeply than that for the men, but then declines for the highest categories of corporal punishment. Rather than attempting to interpret that decrease, it seems more plausible to regard it as the result of small *n* fluctuations and to interpret the findings as evidence that is consistent with the hypothesis.

Component items

The analyses just described were repeated separately for each of the four items making up the depression index. All four depressive symptoms were found to be significantly related to corporal punishment, but the relationships were not as regular or as strong as those based on the combined effect of all six indicators in the form of the depression index. This is probably because single indicator measures are generally less reliable and less valid measures of an underlying latent construct.

Interaction and partial effects

The third row of Table 4.2 provides data on whether the relation between corporal punishment and depression is different for sons and daughters. The parallel lines on Figure 4.1 suggest that the effects are very similar, and this is confirmed by the

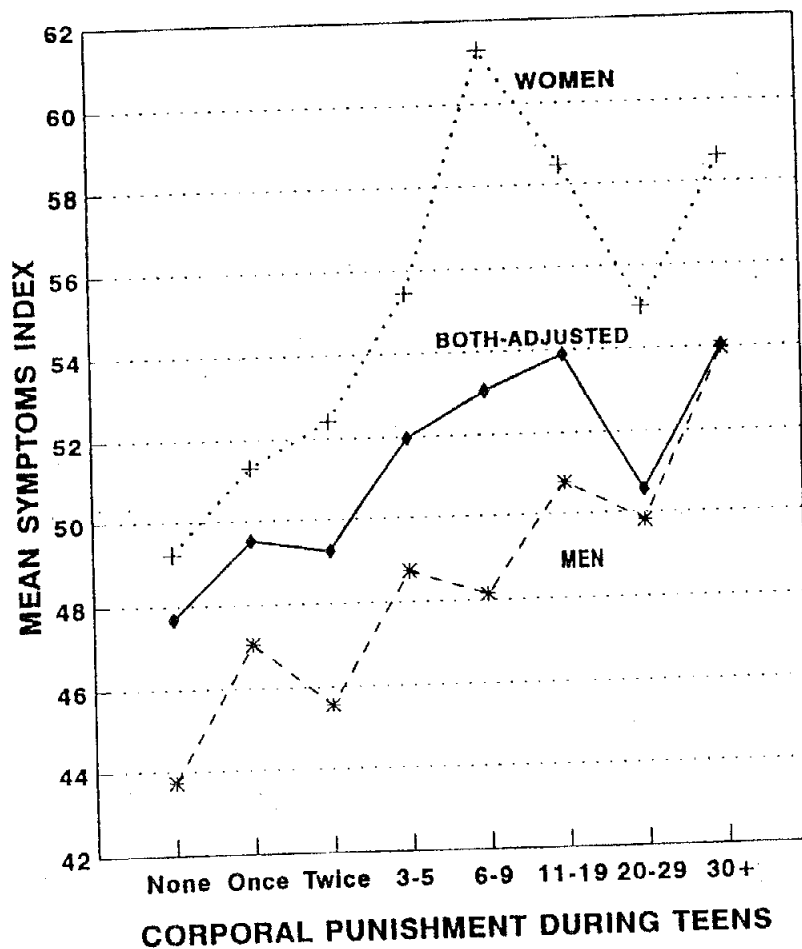


Figure 4.1. Depressive symptoms by corporal punishment by parents.

third row of Table 4.2, which indicates that there is not a significant interaction between gender of the child and corporal punishment. Finally, it is important to note that the significant effect of corporal punishment occurs despite controlling for possible confounding with the five other variables – SES, gender of the child, husband-to-wife violence, excessive drinking, and witnessing violence between parents. Table 4.2 shows that four of these variables are significantly related to depression. Thus, it is remarkable that corporal punishment per se accounts for any of the variance in depression after subtracting out their effect.

Gender of parent differences

Perhaps there is something unique about the effect of a mother hitting a teenage son or daughter. According to the presumed traditional pattern of gender roles, that should be the father's job. If so, "physical discipline" by fathers might not have the same adverse consequences. To test this, the analyses were replicated separately for corporal punishment by mothers and by fathers. The results were very similar to those shown in Table 4.2 and Figure 4.1.

Corporal punishment and suicidal thoughts

The relation of corporal punishment to suicidal ideation was examined because of its practical and theoretical importance. The theoretical issues are illustrated by Freud's observation (cited earlier) that suicide is "murderous impulses against others re-directed upon himself." Suicidal ideation was measured by asking how often the respondent "Thought about taking your own life" during the preceding 12 months.

The results of testing the hypothesis that corporal punishment is associated with an increased probability of suicidal thoughts are given in Table 4.3 and Figure 4.2. The findings are in some ways similar and in other ways different from the relation of corporal punishment to the Depressive Symptoms Index. They are similar in that with increasing amounts of corporal punishment, both depressive symptoms and thinking about suicide increase. In addition, replications testing the hypothesis separately for corporal punishment by mother and by father produced results that are very similar to those for depression. However, there are also important differences between the findings on depression and those on suicidal ideation. The main difference is that depression tends to increase with even one instance of corporal punishment in adolescence, whereas the plot lines for suicidal ideation in Figure 4.2 tend toward an exponential relationship. That is, little or no increases in suicidal thoughts occur until the two highest categories of corporal punishment are reached. Then the frequency of thinking about suicide jumps sharply. Perhaps this is because suicide is such an extreme step that it may take a high frequency of corporal punishment to do something as extreme as thinking about killing oneself.

Table 4.3. *Suicidal thoughts by corporal punishment, analysis of covariance*

Source of variance	df	Corporal punishment by			
		Mother		Father	
		F	p <	F	p <
<i>Main effects</i>					
Corporal punishment	6	6.81	.001	4.84	.001
Gender of respondent	1	2.86	.091	6.06	.014
<i>Interaction effect</i>					
Corporal punishment by gender	6	1.49	.178	0.34	.918
<i>Covariates</i>					
Socioeconomic status	1	0.67	.415	0.85	.357
Husband-to-wife violence	1	122.45	.001	112.62	.001
Heavy drinking	1	0.03	.862	0.46	.498
Violence between respondent's parents	1	31.48	.001	34.72	.001

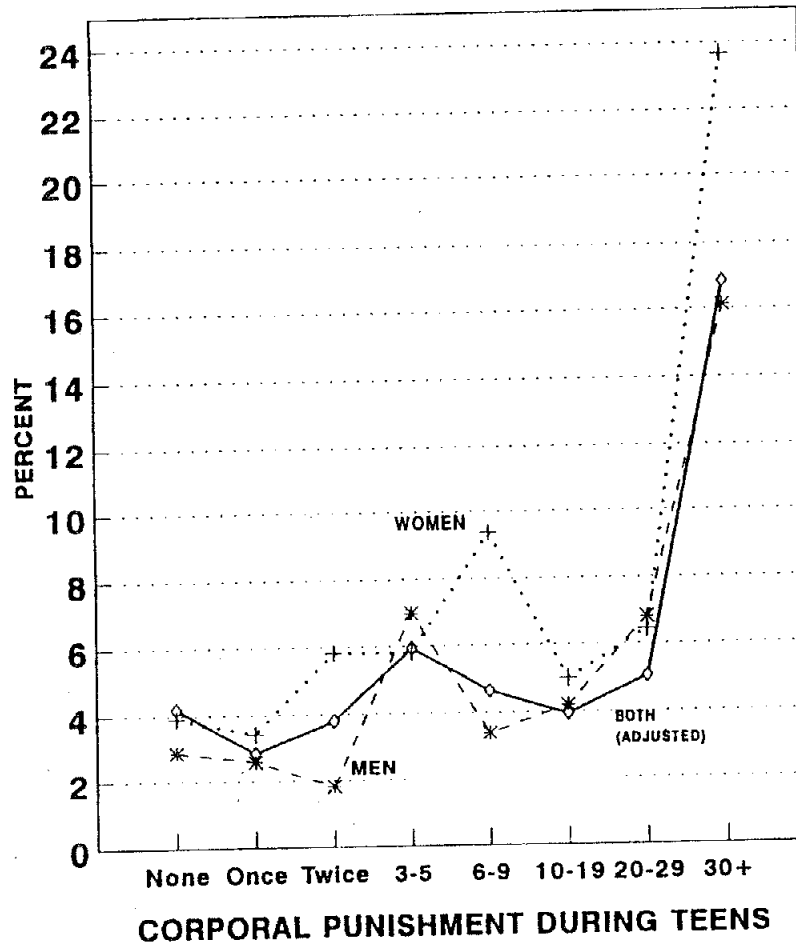


Figure 4.2. Thought about suicide by corporal punishment by parents.

Logistic regression analyses

The hypotheses were retested using logistic regression (logit) for several reasons. The most general reason is to examine the robustness of the findings across a different statistical analysis method. A more specific reason is that suicidal ideation was measured as a dichotomy, and unlike analysis of covariance, logit is intended for use with a categorical dependent variable. In addition, by categorizing the subjects into those who had depression scores at the 90th percentile or higher, one can use logit to test the hypothesis that corporal punishment tends to increase not only the average depression index score, but also the probability of being more severely depressed.

Figure 4.3 shows that the more corporal punishment experienced as a teenager, the greater the probability of being at or above the 90th percentile on the Depressive Symptoms Index (see Table 4.4 for regression coefficients). The separate plot lines in Figure 4.3 also show that the relationship holds regardless of whether the respondent experienced husband-to-wife violence in the previous 12 months (upper line) or did not (lower line); but in the latter case, the slope is considerably

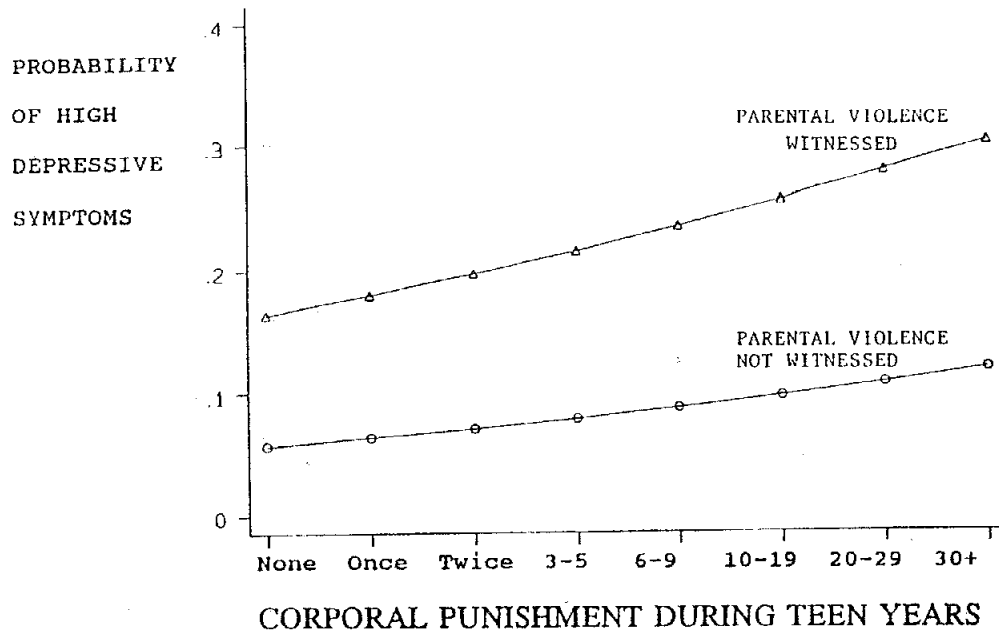


Figure 4.3. Probability of high depressive symptoms by corporal punishment during teen years.

Table 4.4. Logistic regression analyses of depression and suicidal ideation on corporal punishment and five other variables

Independent variable	Odds ratio	SE	t	p <
<i>Depression^a</i>				
Corporal punishment	1.116	0.030	4.088	.001
Gender (1 = female)	1.869	0.227	5.145	.001
Socioeconomic status	0.978	0.003	-7.493	.001
Husband-to-wife violence	3.077	0.384	8.999	.001
Heavy drinking	1.295	0.240	1.394	.082
Violence between parents	1.233	0.181	1.429	.077
<i>Suicidal ideation^b</i>				
Corporal punishment	1.118	0.040	3.120	.001
Gender (1 = female)	1.358	0.214	1.946	.003
Socioeconomic status	1.002	0.004	0.489	.310
Husband-to-wife violence	3.825	0.605	8.476	.001
Heavy drinking	1.251	0.300	0.934	.176
Violence between parents	1.745	0.314	3.096	.001

^aChi-square = 221.18, $n = 4,524$, $p < .001$.

^bChi-square = 117.33, $n = 4,534$, $p < .001$.

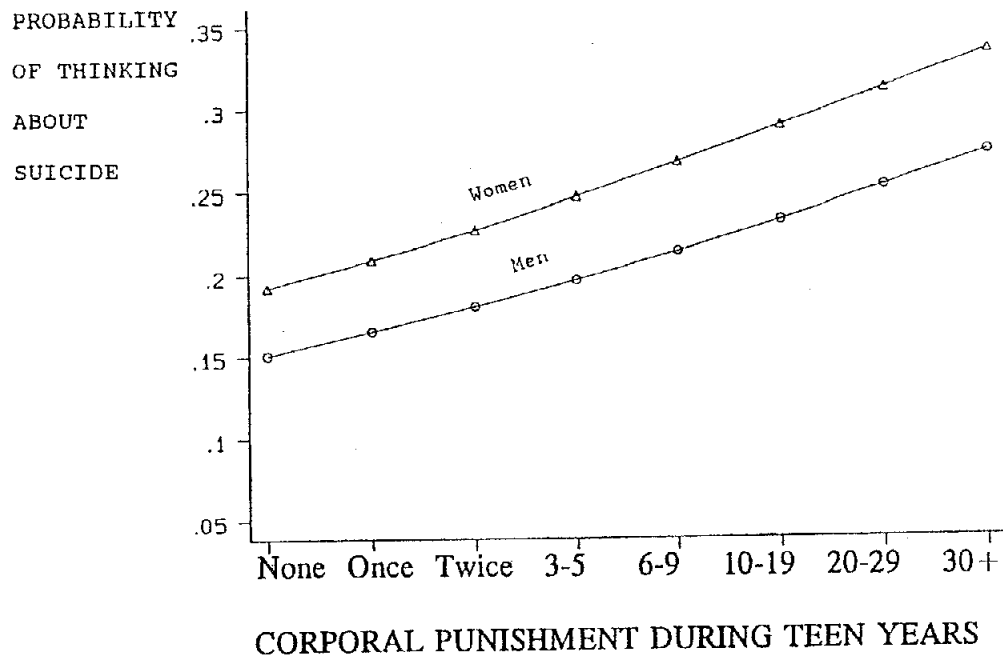


Figure 4.4. Probability of thinking about suicide by corporal punishment during teen years.

smaller. Figure 4.4 shows that the more corporal punishment experienced as a teenager, the greater the probability of thinking about suicide, and that this applies about equally to women and men.

Discussion and conclusions

This research tested the idea that the psychological damage to children that results from being physically attacked by a parent is not restricted to the extreme forms of violence known as physical "abuse" but also applies to the ordinary and legal corporal punishment of children.

About half the respondents in this nationally representative sample recalled having been hit by their parents when they were adolescents. This prevalence rate, which is consistent with the findings of other studies, is important because it indicates the degree to which physical violence is used in the socialization of U.S. children and also because it indicates that the relationship found between corporal punishment and depressive symptoms and suicidal thoughts is not of a small minority of cases that fall outside the realm of ordinary corporal punishment. Confidence in the findings is further strengthened by the following. First, the relationship of corporal punishment to depressive symptoms and suicidal thoughts is net of a number of variables known to be related to depression and suicidal thoughts. Regardless of whether there was marital violence, and for men as well as women, for both low- and high-SES persons, for those who did and did not have a drinking problem, and for those who witnessed violence between their parents and those who did not, the more

corporal punishment they experienced as a teen, the higher the Depressive Symptoms Index and the greater the occurrence of thoughts about committing suicide.

This is not to say that gender, SES, marital violence, and witnessing violence as a child are unrelated to depression. Far from it. The results of this study show that women have a significantly higher level of depressive symptoms than do men (which is consistent with numerous other studies), that low-SES respondents have more depressive symptoms (which is also consistent with many previous studies), and that being in a violent marriage is strongly associated with a high average number of depressive symptoms (Stets & Straus, 1990), as is witnessing violence between one's parents (Straus, 1992). This significant net effect means that after subtracting out the overlap of corporal punishment with these variables, corporal punishment by itself remains related to depression and suicidal ideation. It remains possible, of course, that uncontrolled factors account for the relationships obtained between corporal punishment and depression and suicidal ideation.

Second, there is no significant interaction of corporal punishment with gender of the child. Thus, corporal punishment tends to produce essentially the same increase in depressive symptoms for men and women.

Third, separate analyses were done for corporal punishment administered by fathers and mothers. The results of the two analyses are very similar. Thus, corporal punishment increases the probability of depression, regardless of whether it is administered by the child's mother or father.

Fourth, all the analyses were replicated using two other measures of marital violence – violence by the wife, and total couple violence. The results of controlling for these two variables produced findings that are essentially the same as those shown in Figures 4.1 and 4.2 and in Tables 4.2 and 4.3. Fifth, the analyses were also replicated using logistic regression, with results that led to identical conclusions.

Methodological problems

An important methodological problem arises because no data were available that would have permitted excluding from the sample those whose parents engaged not only in ordinary corporal punishment, but also in more severe acts of violence, that is, physical abuse. This confounding of ordinary corporal punishment with abuse is particularly likely for respondents who experienced frequent corporal punishment and might account for the relationships reported. While this confounding might have produced the finding that corporal punishment is related to depression and suicidal thoughts, research reported elsewhere (Straus, 1994) makes that possibility less likely. That research avoided the confounding of corporal punishment and physical abuse because it was possible to remove from the sample all children who were physically abused. In addition, it minimized the selective recall problem because it used data for the current year as reported by the parents. With these two sources of artifactual findings removed, the results still showed that the more

corporal punishment is experienced, the higher the probability of the child having high levels of physical aggression, delinquency, and interpersonal problems with other children.

A second methodological problem stems from the fact that this study, like a previously reported study of corporal punishment and crime (Straus, 1991), is based on cross-sectional data. The findings in the previous paper suggest that the use of corporal punishment to correct a child's misbehavior in the long run has the opposite effect because it is associated with an *increased* probability of subsequent aggression and crime. However, the causal direction of the findings is ambiguous. Rather than corporal punishment causing the child to become aggressive or delinquent, it could be the other way around. Parents typically spank a child *because* he or she hit another child or hits them. Thus, it is just as plausible to say that the child's aggression or other misbehavior caused the spanking as it is to argue that spanking teaches aggression. The problem of which is cause and which is effect may be less serious in the present case because the hypothesized outcome (depression and thinking about suicide) is probably something for which parents do not usually hit a child. Nevertheless a longitudinal or experimental study is needed to deal with the question of causal direction.

Neurobiological processes

Another approach to investigating the processes linking corporal punishment and depression is suggested by research on the neurobiology of depression. At a recent conference on affective disorders there was wide agreement that depression is a heterogeneous disorder that may be caused by many things, but probably involves a final biological process of enduring structural and chemical changes in the brain:

One fact that could play a role in such long term changes is stress. Both animals and people who experience chronic stress respond by secreting glucocorticosteroids known as the "stress hormones." . . . this is the most robust biological concomitant of depression – showing in up to 50% of cases, especially severe ones. (Holden, 1991, p. 1451)

Several other *permanent* changes in brain functioning were reported as occurring in both animals and humans who experience continuing stress.

For children, one such continuing stress may be corporal punishment. It often begins in infancy and is particularly frequent for toddlers, many of whom are hit almost daily, and a third of whom are hit almost once a week (Straus, 1994). As reported earlier in this chapter, corporal punishment continues into the teen years for about half of all U.S. children. The changes in brain structure and functioning associated with the stress of having been physically assaulted for 13 or more years might explain the link between corporal punishment and depression reported in this chapter. It would be relatively easy to test this theory because it does not necessarily require either experimental or longitudinal data. It can be done by obtaining information on the chronicity of corporal punishment – readily provided

by parents – and the level of “stress hormones” produced by children subjected to varying levels of corporal punishment.

The longitudinal, experimental, and neurobiological studies of corporal punishment suggested earlier are urgently needed because close to 100% of U.S. children experience corporal punishment (Straus, 1994; Wauchope & Straus, 1990) and because of the seriousness of the harmful effects that might be caused by corporal punishment. If longitudinal or experimental replications of the present findings confirm that corporal punishment is a risk factor for depression and suicide – or if neurobiological studies find that the more frequent the use of corporal punishment, the greater the level of brain functions associated with depression – it would have far-reaching implications for the “primary prevention” of mental illness.

NOTES

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1 There is no standard definition of corporal punishment or physical punishment. In this chapter *corporal punishment* is defined as the use of physical force with the intention of causing a child to experience pain but not injury, for purposes of correction or control of the child's behavior. The most frequent forms are spanking, slapping, grabbing, or shoving a child “roughly” (i.e., with more force than is needed to move the child), and hitting with certain traditionally acceptable objects such as a hairbrush, belt, or paddle. However, the operationalization of corporal punishment in this paper (see “Methods” section) excludes hitting with an object on the grounds that it poses a significant risk of causing an injury that needs medical treatment and therefore crosses the line from corporal punishment to physical abuse. This operationalization therefore differs from the laws of every state in the United States, which give parents the right to hit a child with an object provided no serious injury results. It also differs from traditional cultural norms that sanction the use of objects such as hairbrushes, belts, and paddles. Excluding hitting with objects can also be justified on the basis of the gradual reduction in the frequency and severity of corporal punishment in U.S. society, which has led many people to regard hitting with such objects as physical abuse rather than corporal punishment.

Similar ambiguity applies to *spanking*. To some it means slapping a child repeatedly on the buttocks, traditionally the bare buttocks. But for most contemporary Americans, I believe it means any slapping or hitting, probably the most frequent form of which is to slap a child's hand for touching something. I will use the terms *corporal punishment*, *physical punishment*, *hitting*, and *spanking* as synonyms.

2 Greven (1991) argues that Freud could not bring himself to acknowledge the legitimate experiential basis for the fantasies of being beaten because he himself was a product of physical punishment and had internalized its values. He makes a similar argument to explain why contemporary psychiatrists and psychologists have not explored the effects of physical punishment.

3 A more detailed analysis of prevalence rates in Straus and Donnelly (1993) focused on consistency between parents in hitting adolescents. Of teenage sons who were victims of

corporal punishment, in just over half (52%) of the cases, they are hit by both parents. If it was only one parent who hit, sons were about equally likely to be hit by the mother (23%) as the father (25%). Of teenage daughters, 41% of those who experienced corporal punishment were hit by both parents. If they were hit by just one of the parents, it was twice as likely to be the mother (39%) than the father (20%).

- 4 These prevalence rates are for the total sample. However, because of missing data on one or more of the six independent variables, the sample used to examine the hypothesized relationship between corporal punishment and depression was reduced from 5,700 cases to 5,069 for corporal punishment by the mother and to 4,745 for corporal punishment by the father. Although those *N*s are still very large, the loss of 11 and 17% of the cases, respectively, can bias the sample. The comparison of the prevalence rate for the reduced sample with the rates in Table 4.1 shows that all are within 3 percentage points.

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