ABSTRACT

One of the reasons why so few parents question the wisdom of "spare the rod and spoil the child" and why so few researchers have investigated the potential adverse effects, is probably the culturally accepted assumption that, when done "in moderation," physical punishment is harmless and sometimes necessary. This study starts from assumptions that are almost the opposite of that aspect of American culture. It tests the hypothesis that the greater the use of physical punishment, the greater the probability, later in life, of depression, suicidal ideation, alcohol abuse, wife assaults, and child abuse. The findings to be reported must be regarded as tentative because they are based on recall data about physical punishment, whereas an adequate test of this hypothesis requires prospective data for a large and representative sample. The findings are based on 6,002 families who were studied as part of the 1985 National Family Violence Survey. Measures used were a questionnaire regarding physical punishment in the family of origin, physical abuse measures, child abuse, wife assault, depressive symptoms, suicidal ideation, and drinking index measures. The results suggest that use of physical punishment by parents is a risk factor for depression, suicide, alcohol abuse, physical abuse of children, and physical assaults on wives. The social-psychological processes which produced these effects need to be determined to provide a basis for treating persons suffering these consequences. (LLL)
Physical Punishment by Parents: A Risk Factor in the Epidemiology of Depression, Suicide, Alcohol Abuse, Child Abuse and Wife Beating

Murray A. Straus
Glenda Kaufman Kantor
Objective.- To investigate the theory that physical punishment by parents is a risk factor for later violence and mental health problems.

Design.- Logistic regression analysis of epidemiological survey data.

Population Studied.- Nationally representative sample of married and cohabiting couples.

Results.- Almost half of the sample (49.8%) recalled having been physically punished during their teen years, a figure that agrees with research using contemporaneous reports by parents. The analysis controlled for a number of possible confounding risk factors such as low socioeconomic status and found that children of parents who used physical punishment had an increased risk later in life of depressive symptoms, suicidal thoughts, alcohol abuse, physical abuse of children, and wife beating.

Conclusions.- The consistent association of physical punishment with major adult problem behavior indicates a need to replicate the study using longitudinal data. If the findings are confirmed by such studies, it suggests that a major step in primary prevention of violence and mental health problems can be achieved by a national effort to reduce or eliminate all use of physical punishment.

THE WORK OF physicians such as Kempe helped bring public attention and remedial programs to combat "physical abuse" of children, i.e., physical assaults severe enough to cause injury. This paper suggests that ordinary physical punishment by parents may be an even greater public health problem. This possibility arises because, although the effects are less serious in the short run, the incidence rates and the findings to be presented suggest that physical punishment puts at least half of the US population at risk of serious mental and physical health problems.

Physical abuse of a child is universally regarded with revulsion and numerous studies point to the long-term disabling effects of "physical abuse." At the same time, the 1975 and 1985 National Family Violence Surveys revealed that over 90 percent of American parents used "physical punishment" (an act intended to correct misbehavior by causing the child physical pain, but not injury) on young children. Only a few studies have considered the possibility that "legitimate" physical punishment is also a risk factor for psychological maladaptation in adulthood, and most of those have been confined to increased risk of aggression.
One of the reasons why so few parents question the wisdom of "spare the rod and spoil the child" and why so few researchers have investigated the potential adverse effects, is probably the culturally accepted assumption that, when done "in moderation," physical punishment is harmless and sometimes necessary. This paper starts from assumptions that are almost the opposite of that aspect of American culture. It tests the hypothesis that the greater the use of physical punishment, the greater the probability, later in life, of depression, suicidal ideation, alcohol abuse, wife assaults, and child abuse.

The findings to be reported must be regarded as tentative because they are based on recall data about physical punishment, whereas an adequate test of this hypothesis requires prospective data for a large and representative sample. Such research will take many years and large funding, but could have vast implications for primary prevention of family violence and psychological problems. Preliminary evidence is therefore needed as one basis for the deciding on whether to invest in a prospective study, especially since as noted above, most of the public and most social scientists would otherwise reject the value of such an investment.

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Methods

Sample
The findings to be reported are based on 6,002 families who were studied as part of the 1985 National Family Violence Survey. This is a national probability sample selected by random digit dialing sampling methods. Interviews lasted an average of 35 minutes. The response rate, calculated as "completed portion of eligibles" was 84%. Of the 6,002 families, 3,229 were families with children. One member of each household, either the husband or the wife, was interviewed. A random procedure was used to select the gender of the respondent. When more than one child under the age of 18 was in the household, a random procedure was used to select the "referent child" as the focus of the parent-to-child violence questions. Detailed information on the sample and survey methods is given elsewhere.5

Measures

Physical Punishment in the Family of Origin. Respondents were asked "Thinking about when you yourself were a teenager, about how often would you say your mother or stepmother used physical punishment, like slapping or hitting you? Think about the year in which this happened the most. Did this happen never, once, twice, 3-5 times, 6-10 times, 11-20 times, more than 20 times?" Almost half the sample (49.8%) reported having been physically punished one or more times. This seems an astonishingly high rate for adolescents, but it is consistent with previous research.6 7 This is far from an ideal measure of physical punishment because the validity of recall data on events that took place many years earlier is questionable. Nevertheless, the prevalence rate of about 50% corresponds closely to the rate based on contemporaneous data obtained by interviewing parents of teen age children.8 While this correspondence is not necessarily evidence of validity, it does somewhat alleviate concern about two threats to validity. First, it reduces the possibility that, if the hypothesis is supported, it is because depressed adults remember more bad
things about their childhood, such as having been hit as a teen, even

though more such events did not happen. In this case, we know that the
percentage recalling the "bad thing" is almost identical to the percentage
of parents who reported doing it to an adolescent during the year of the
survey. Second, the 5% rate shows that the respondents who reported having
been physically punished during their teen years are not a small and highly
deviant subset of all teenagers.

Physical Abuse Measures. The Conflict Tactics Scale (CTS) was
used to measure physical abuse of children and spouses. The CTS asks
respondents to think of situations in the past year when they had a
disagreement or were angry with a specified family member and to indicate
how often they engaged in each of the acts included in the CTS. The list
starts with the items for the Reasoning scale of the CTS, such as
"Discussed the issue," and proceeds on to the items in the Verbal
Aggression Scale, such as "Insulted or swore at him/her." These are
followed by the Violence index acts such as slapping, punching, and
kicking. The CTS is a well validated and widely used measure of reasoning,
verbal aggression, and violence in families. There is an accumulation of
evidence that the CTS has a stable factor structure, moderate reliability
and concurrent validity, and strong evidence of construct validity.

Child Abuse. The CTS child abuse index measures whether one or more
of the following acts by a parent, each of which is almost universally
regarded as abusive, occurred during the 12 months preceding the interview:
kicking, biting, punching, beating up, scalding and attacks with weapons.
We also added hitting the child with an object such as a stick or a belt.
Although this inclusion is not consistent with informal American social

 norms or legal norms, hitting with objects does carry a considerable risk
of physical harm to the child.

Wife Assault. The CTS wife assault index measures whether one or more
of the following acts occurred during the preceding 12 months in the course
of an argument: threw something at her; pushed, grabbed or slapped her;
kicked, bit, hit with fist; hit with object; beat-up; choked; threatened
with knife or gun; used knife or gun.

Depressive Symptoms. The items are from the Psychiatric Evaluation
Research Interview or PERI. The PERI is a 160 item instrument with
many subscales. For measuring depression we summed the responses to a
subset of items identified as depressive symptoms by factor analysis.

Except for the last item, each uses the following format: In the past year
how often have you... never, almost never, sometimes, fairly often or very
often?

"Been bothered by feelings of sadness or depression?"
"Felt very bad or worthless?"
"Have you had times when you couldn't help wondering if anything was
worthwhile anymore?"
"Have you felt completely hopeless about everything?"
"Thought about taking your own life?"
"In the past year have you ever actually tried to take your own
life?" (Yes, No)

For the logistic regression analysis, we dichotomized this variable
into a high symptoms group at the 83rd percentile. This division point was
chosen because the important issue, both theoretically and clinically is
the occurrence of a high or chronic level of depressive symptoms.
Suicidal Ideation. Because of the unique importance of suicide for medical practice, and because it indicates such a severe level of psychological distress, we also report a separate analysis of the item 'Thought about taking your own life.' For the logistic regression, we dichotomized this variable into those who reported thinking about committing suicide during the previous 12 months and those who did not.

Drinking Index. The Drinking Index was computed from the following questions:

"In general, how often do you consume alcoholic beverages—never, less than 1 day a month, 1 to 3 days a month, 1 to 2 days a week, 5 to 6 days a week, daily? And: "On a day when you do drink alcoholic beverages, on average how many drinks do you have? By a drink we mean a drink with a shot of 1-and 1/2 ounces of hard liquor, 12 ounces of beer, or 5 ounces of wine?"

This measure groups respondents according to 6 categories of frequency and consumption ranging from abstinence to high volume binge drinking. We used a dichotomized version of this index for the logistic analysis, where the highest volume drinkers were coded 1 and all others were coded 0.

The Drinking Index differs from the traditional Quantity-Frequency measure developed by Cahalan and associates15 because it is not beverage specific and may underestimate the upper limits of consumption levels. However, the Drinking Index is comparable to measures used by other researchers16 and also seems to have construct validity as shown by the results presented in four papers using these measures.17 18 19 20

ANALYSIS

Logistic regression (logit)21 was used to test the etiologic models. Each logistic model included the age and gender of the subject and family socioeconomic status (SES) because these characteristics are confounded with both physical punishment and the incidence of violence and mental health problems. The SES measure is a factor score index constructed using the following five items: education of the wife and the husband, their occupational prestige scores, and the combined income of the couple. Additional variables were included in some logistic models if we believed they were needed to adequately specify the model.

To focus on the hypothesized effect of physical punishment in childhood on the probability of violence and mental health problems as an adult, we used the partial plotting technique developed by Hamilton.22 The graphs show the effects of increasing levels of childhood physical punishment on the dependent measures and display partial relationships such as separate plots for men and women, while controlling for all other variables in the model.

RESULTS

(Table 1 about here)

Physical Punishment and Depressive Symptoms

The t of 4.427 in the first row of Part A of Table 1 shows that physical punishment in childhood is associated with a significantly increased probability of depressive symptoms as an adult, even when controlling for the effects of a number of other variables. This is remarkable in view of the fact that Part A shows that five other variables are also significant risk factors for depression. The large t values for...
SES and Gender in the rows 2 and 3 reflect the higher incidence of depression among lower SES individuals and women found in previous studies, though these differences may also be influenced by class and gender based diagnostic biases and differences in help-seeking behavior. The row labeled "Parent's Marital Violence" shows that growing up in a family in which there is physical violence between the parents is associated with a significantly greater probability of depressive symptoms. The row labeled Wife Assault indicates that current husband-to-wife assaults are associated with the highest probability of depression in either spouse.

Physical Punishment and Suicidal Ideation

Since the question on thinking about committing suicide is part of the depression index, it is not surprising that the test of the etiologic model for this variable (Part B of Table 1) shows some similarities in the legit estimates for depression. The first row of Part B shows a strong and significant association of physical punishment with the probability of thinking about suicide during the 12 month period covered by this study, net of other variables in the model. Perhaps the two most important differences are that SES is not significantly related to suicidal thoughts, and that the most significant predictor of suicidal thoughts is assaultive behavior towards the wife.

Because of the confounding of gender with depression and with being a victim of assault by a husband, Figure 1 plots the probability of thinking about committing suicide by physical punishment separately for men and women. The plot lines show that suicidal ideation increases markedly with the frequency of adolescent physical punishment for both men and women, but is more prevalent among women.

Physical Punishment and Adult Alcohol Abuse

Part C of Table 1 shows that increasing amounts of physical punishment are associated with an increasing probability of alcohol abuse (high daily drinking or high volume binge drinking). The findings for the other variables are consistent with previous research. They show that gender is the most significant predictor of alcohol abuse. Age, which was not significantly related to depression or suicidal thoughts, is strongly related to alcohol abuse and that is also consistent with previous research. The other significant variables in the model are SES, and wife assault. The negative signs of the coefficients indicate that the probability of alcohol abuse is greater among men, younger subjects, and lower socioeconomic status subjects. The positive t value for wife assault indicates that the occurrence of wife assault is associated with a higher the probability of alcohol abuse.

Because the confounding of gender with depression and with being a victim of assault by a husband, Figure 1 plots the relationship of physical punishment to alcohol abuse separately for men and women. The fact that the plot lines of alcohol abuse are well above that for women shows that the probability of excessive drinking is vastly greater for men, and the somewhat steeper slope of the plot line for men shows that the
amount of physical punishment by parents is more closely related to alcohol abuse by men than it is for women.

**Physical Punishment and Child Abuse**

The results in Parts A, B, and C of Table 1 have shown that physical punishment is significantly related to depressive symptoms, suicidal thoughts, and alcohol abuse, but that other etiological variables in the model were even more closely related. The findings in Part D of Table 1 parallel these findings because they reveal that the more physical punishment the subjects in the study experienced when they were children, the greater the risk that they will go beyond ordinary physical punishment to acts that are severe enough to be classified as physical abuse. However, the results in Part D differ because, comparison of the t values shows that the frequency of physical punishment as an adolescent is the etiological variable that is most highly related to the probability of physically abusing a child. A close second is violence by husbands, followed by whether the parents of the subject were violent toward each other. Thus, the model in Part D indicates that the presence of other types of family violence are the most important etiological risk factors for child abuse, and that when these other types of family violence are specified in the model, the remaining risk factors (SES, gender of parent, alcohol abuse, and age of the parent) are not significantly related to child abuse.

(Figure 3 about here)

The results just presented are consistent with our previous analyses of factors influencing child abuse which show that assaults on wives are strongly related to the occurrence of child abuse. In view of this relationship Figure 3 plots the effects of physical punishment on child abuse separately for those subjects who had experienced husband-to-wife violence during the year of survey and those who had not. The parallel plot lines indicate that, regardless of whether there was violence in the current marriage, the more physical punishment experienced the greater the probability of physically abusing a child. The upper plot line (wife assault occurred in the previous 12 months) demonstrates that the probability of child abuse is much greater in families where wives are beaten. The somewhat steeper slope of the upper plot line also indicates an interaction effect in which the effect of physical punishment is greater when the marriage is characterized by wife assault.

**Physical Punishment and Wife Assault**

Although studies have documented the effects of physical violence in the family of origin on increasing the probability of wife assault, the exclusive focus of those studies on the most severe childhood abuse, and/or witnessing their mother being beaten, implies that only these severe levels of violence are risk factors for wife beating in adult life. The first row of Part E of Table 1 shows that ordinary physical punishment is also a risk factor for current assaults on wives, even when other theoretically important variables are controlled. Low SES, youthfulness, violence between the parents of the subjects, and current alcohol abuse are also significant risk factors for wife assault. The partial relationships in the model are illustrated by Figure 4 which shows that even when there has been no violence between the respondents parents, a history of physical punishment significantly increases the risk of husbands' assaultive
behavior. At the same time, the higher probability of wife assault by men whose parents were violent toward each other shows that adding parental marital violence in the family of origin to the equation substantially increases the probability of current wife assault.

(Figure 4 about here)

LIMITATIONS

There are at least three major limitations. First, as already noted, the physical punishment data are based on recall. Second, subjects who reported physical punishment may also have suffered from abusive parenting. Third, the findings refer to physical punishment during adolescence and may not apply to physical punishment experienced as a toddler or young child. Concerns over the first limitation is somewhat mitigated by the fact that, despite being based on recall, the incidence rates are almost the same as those based on contemporaneous data. Concern over the confounding of physical punishment and physical abuse and the question of whether the findings also apply to physical punishment of young children, are also somewhat mitigated by the results of other research in which it was possible to exclude from the analysis children who were also physically abused, and which controlled for age. That research found that physical punishment of even very young children whose parents did not engage in either physical or verbal abuse, is associated with increased rates of such problematic behavior as interpersonal problems with other children, delinquency, and aggression.26

CONCLUSIONS

The results of this study, if replicated by studies which do not have the limitations noted above, suggest that use of physical punishment by parents is a risk factor for depression, suicide, alcohol abuse, physical abuse of children, and physical assaults on wives. The social-psychological processes which produced these effects need to be determined to provide a basis for treating persons suffering these consequences. For example, for some children being hit by those they love and on whom they depend for their very existence, may be a traumatic event with consequences similar to other traumatizing events. Another possibility, and one which is suggested by a recent study, is that physical punishment tends to create a feeling of helplessness and powerlessness.27 Perhaps even more important are the implications for primary prevention of physical and psychological injury. Limiting and ending all use of spanking and other physical punishment, as is now the national policy in Sweden and several other countries,28 29 can make an important public health contribution. Pediatricians and others involved in pre and post-natal care have the potential to contribute to the health of children, and ultimately the entire population, by unambiguously informing parents that spanking or other hitting of children is never appropriate because, even though it may serve to correct an immediate problem, it puts the child at risk for serious medical and other problems later in life.
REFERENCES


8. Wauchop EA, Straus MA. 1990. Physical Punishment and Physical Abuse Of American Children: Incidence Rates By Age, Gender, and Occupational Class. In:


Table 1. Logistic Regression Analyses*

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* The N's vary because of listwise deletion. The N in Part C is reduced because it only refers to families with children.

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