

Corporal Punishment by American Parents: National Data on Prevalence, Chronicity, Severity, and Duration, in Relation to Child and Family Characteristics

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We present data on corporal punishment (CP) by a nationally representative sample of 991 American parents interviewed in 1995. Six types of CP were examined: slaps on the hand or leg, spanking on the buttocks, pinching, shaking, hitting on the buttocks with a belt or paddle, and slapping in the face. The overall prevalence rate (the percentage of parents using any of these types of CP during the previous year) was 35% for infants and reached a peak of 94% at ages 3 and 4. Despite rapid decline after age 5, just over half of American parents hit children at age 12, a third at age 14, and 13% at age 17. Analysis of chronicity found that parents who hit teenage children did so an average of about six times during the year. Severity, as measured by hitting the child with a belt or paddle, was greatest for children age 5–12 (28% of such children). CP was more prevalent among African American and low socioeconomic status parents, in the South, for boys, and by mothers. The pervasiveness of CP reported in this article, and the harmful side effects of CP shown by recent longitudinal research, indicates a need for psychology and sociology textbooks to reverse the current tendency to almost ignore CP and instead treat it as a major aspect of the socialization experience of American children; and for developmental psychologists to be cognizant of the likelihood that parents are using CP far more often than even advocates of CP recommend, and to inform parents about the risks involved.

KEY WORDS: Punishment; physical; corporal; spanking; parent; age; infant; gender; SES; ethnic; region.

INTRODUCTION

Evidence indicating that almost all American parents use spanking and other legal forms of corporal punishment (CP) on toddlers has been available for many years. Sears, Maccoby, and Levin (1957), for example, found that 99% of the children they studied experienced CP at least occasionally. Straus (1983) found a 95% rate for toddlers, and Bryan and Freed (1982) found that 95% of a sample of community college students had experienced CP. Numerous other studies (e.g., Giles-Sims, Straus, & Sugarman,

1995; Goodenough, 1931/1975; Holden, Coleman, & Schmidt, 1995; Straus, 1994a; Wauchope & Straus, 1990) also show extremely high rates of CP. CP therefore appears to be a near universal aspect of the socialization experience of American children, although to widely varying degrees in individual cases. There is also increasing evidence that, even when done by loving and supportive parents, CP is associated with an increased risk of unwanted later effects such as aggression and depression as an adult (Straus, 1994a; Straus, Sugarman, & Giles-Sims, 1997; Thompson, *In press*).

Despite the high prevalence rates and the evidence suggesting harmful side effects, there is also evidence that this pervasive aspect of the socialization of American children is either not perceived or ignored. One indication is the extremely limited coverage of CP revealed by a content analysis of 10 widely

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used textbooks in child development published between 1985 and 1989 (Straus, 1994a). For this article, the analysis was repeated for books published between 1992 and 1996. The results in Table I shows little change from the 1980s to the 1990s. The omission of information on CP in child development textbooks is unfortunate because discipline problems are frequently the focus of clinical child psychology and, as indicated above, CP is a widely used disciplinary technique. Consequently, the background understanding the nature and extent of CP provided by the research reported in this article may be helpful in clinical practice.

Among the books for the period 1992–1996, only a third had entries in the index for corporal punishment, spanking, physical punishment, or anything on CP under subheads such as discipline or punishment. Although page by page scanning the text located material on corporal punishment in 9 of the 11 books, these 9 books devoted an average of only three tenths of a page to CP.

Because, as noted earlier, data on CP has been available for many years, the absence of information on CP in child development textbooks cannot be attributed to lack of developmentally relevant data. Straus (1994a) has suggested methodological and sociocultural factors to explain the neglect of a nearly universal aspect of the socialization of American children. Whatever the reason, current information is needed because the last few years have been a period in which public endorsement of CP declined sharply (Straus & Mathur, 1996). There has also been a recent surge of professional debate about the potential harmful effects of CP, as evidenced by special issues of *Pediatrics* in 1996; *Psychological Inquiry*, *Archives of Pediatric and Adolescent Medicine*, and *Aggression and Violent Behavior* in 1997; and by the 1998 policy

statement on CP by the American Academy of Pediatrics.

Deep value commitments underlie the debate on the appropriateness of CP (Friedman & Schonberg, 1996; Straus, 1994a). Readers of this article therefore need to be aware that our position differs from the standard assumptions of American culture—that CP is sometimes necessary, and if done in moderation by loving parents, is harmless. This tenet of American culture is shared by at least two thirds of Americans (Straus & Mathur, 1996), including the majority of pediatricians (White, 1993) and clinical psychologists (Anderson & Anderson, 1976). Our view, however, is that parents should never use CP because a growing body of research evidence shows that other disciplinary strategies are just as effective and do not involve the risk of escalation into physical abuse (Straus, 1994a) or of subsequent psychological problems for children and adults (Straus, 1994b; Straus & Paschall, 1998; Straus *et al.*, 1997).

Regardless of whether one accepts or rejects use of CP, we suggest that clinical child psychology can benefit from a background understanding of the extent to which parents use this mode of discipline with children of different ages. Consequently, the purpose of this article is to make available information on the use of CP by a nationally representative sample of American parents in 1995 for each year of life from birth through 17, and other age categories. It also provides information on the prevalence of six specific acts of CP that vary in severity, on the chronicity of CP (how often CP was used), and on the duration of CP (the number of years until CP ceases). In addition, we examine the extent to which CP varies by seven other characteristics of the children and the families.

The information on the extent to which CP differs according to these characteristics of children and families can help to understand the social structural determinants of CP and can also have practical value because, as indicated above, there is a growing professional interest in helping parents shift from CP to nonviolent forms of discipline. Such programs need to be guided by empirical data on the extent to which CP is prevalent at different ages and in different sectors of the population. For example, African American parents, and low education parents of all ethnic groups, are more likely to approve of and use CP (Alvy, 1987; Deater-Deckard, Dodge, Bates, & Pettit, 1996; Giles-Sims *et al.*, 1995). Consequently, parent education intended to reduce CP may need to be structured to reflect the culture of these groups.

Table I. Treatment of Corporal Punishment in Child Development Textbooks in 1980s and 1990s

	Year of publication	
	1985–1989 (<i>n</i> = 10)	1992–1996 (<i>n</i> = 11)
CP in Index (%)	20	36
Range of pages on CP	1 sentence to 4 pages	1 sentence to 0.8 pages
Mean no. of pages on CP	0.4	0.3
% of pages on CP	0.0 to 0.3	0.0 to 0.08
Advised avoiding CP if possible (%)	10	27
Advised to never use CP (%)	0	9

If, in recent years, fathers have taken on additional child care responsibilities, the additional effort needed to include fathers in parent education programs may be even more important than previously.

Because this article is intended primarily to explore and describe rather than to test formal hypotheses, each topic in the Results section is introduced by a brief description of findings from previous research.

METHOD

Sample

The data were obtained from a survey by the Gallup Organization (1995). The survey was conducted by telephone in August and September 1995. The telephone numbers were selected by a random-digit stratified probability design. A random procedure was used to provide representation of both listed and unlisted numbers. These methods are designed to produce, with proper weighting, and unbiased probability sample of telephone households in the continental United States, which includes 94% of all households. Among households that met the eligibility criterion (one or more children under 18 living there), the participation rate was 81%. A total of 991 interviews were completed. In two-parent households, because of budget limitations, one parent was randomly selected for the interview. In multichild households, one child was randomly identified, and a parent of that child interviewed, and all data reported pertain to the selected child. See Gallup Organization (1995) for more detailed sampling information. A telephone sample obviously excludes those without telephones, which tends to be low socioeconomic status (SES) persons. However, face-to-face interview surveys also have great difficulty locating and enlisting the participation of such persons, and there is considerable evidence that properly conducted telephone surveys obtain a higher participation rate and are usually more representative than face-to-face interview surveys (Bermack, 1989; Groves *et al.*, 1988; Wells, Burnam, Leake, & Robbins, 1988).

Sample Characteristics and Weighting

The division between boys and girls in this sample was almost equal (49% girls). The ethnic composition was 81% Euro-American, 12% African American, and 7% other ethnic groups (Hispanic

Americans, Native Americans, and Asian Americans). The mean age of the parents interviewed was 36.8 years. More mothers than fathers were interviewed (66% of the sample), partly because the sample included single parents who are predominantly mothers. Fifty-two percent of the parents were married, 15% remarried, 20% divorced, 8% never married, and 4% were cohabiting. The referent children ranged in age from infants to age 17, with a mean age of 8.4 years. Households with college-educated parents were overrepresented (34 vs. 23% in the Census) and those with less than a high school education were underrepresented (8 vs. 14% in the Census). In all analyses, data were weighted to make the data reflect U.S. Census statistics with regard to the gender of the respondent, child's age, ethnic group, region of the country, and parent's education. This involved an unproven assumption that the replies of nonsurveyed members of underrepresented groups would be similar to those who were surveyed.

Definition and Measurement of Corporal Punishment

The definition of CP which guided this research is "the use of physical force with the intention of causing a child to experience pain, but not injury, for the purpose of correction or control of the child's behavior" (Straus, 1994a, p. 4). This corresponds in practice to the legal definition of CP in all states of the U.S., which is in the form of an exemption from the crime of assault for parents who use physical force for purposes of correction and control (see Straus, 1994a, for a discussion and illustrative statutes).

The Parent-Child Conflict Tactics Scales (CTSPC; Straus, Hamby, Finkelhor, Moore, & Runyan, 1998) was used to obtain the data on CP. This version of the CTS includes six items that fall within the range of legal CP. It asks parents how often each of these acts occurred in the previous 12 months. The response categories were *never, once, twice, 3-5 times, 6-10 times, 11-20 times, and more than 20 times*.

Prevalence of CP. The overall prevalence statistics in this article are based on whether the parent reported one or more instances of one or more of the following acts in the previous 12 months. Thus, multiple acts could have occurred in a particular CP episode. (See Straus *et al.*, 1998, for the exact question wording.)

Spanked on the bottom with your bare hand
 Slapped on the hand, arm, or leg
 Pinched
 Shook (for children age 3 and over only)
 Hit on the bottom with something like a belt, hairbrush, a stick or some other hard object
 Slapped on the face or head or ears

Chronicity. For the parents who used CP, it is also important to know how often they engaged in that disciplinary tactic. A chronicity measure was therefore computed for each parent who reported using CP by summing the frequency of each of the six acts in the CP scale. The chronicity of the specific acts are also reported. See Straus (1998) and Straus *et al.* (1998) for an explanation of the need to measure prevalence and chronicity separately.

Severity. Severity of CP can be measured in a number of ways (Straus, 1998). The severity of CP was based on a judgment concerning the risk of injury and degree of normative acceptance made by a five-person team that included a pediatrician specializing in child abuse, a clinical psychologist, two sociologists specializing in research on the family, and a political scientist specializing in public opinion research (Straus *et al.*, 1998). Three acts were judged to carry a higher risk and be less widely accepted, and were classified as severe CP (slap on face or head, hit with belt or hard object, pinched) and two as less severe (spanked and slapped on the hand or leg). Shaking was considered separately because of the extreme danger if done to infants.

Duration. Because this is a cross-sectional study, an estimate of the median duration can only be inferred from the age-specific prevalence statistics. If for example, the percentage hit at ages 11, 12, 13, and 14 were 61, 52, 45, and 32%, respectively, we would infer that the median duration is about 12 years. This inference depends on the assumption that parents who used CP at age 12 were doing so in previous years.

One-Year Reporting. A short reporting period, such the previous week, results in a much higher estimate of chronicity, but a low prevalence rate because not every parent who uses CP did so in the previous week. This is particularly the case with older children. Conversely, a 1-year reporting period results in a higher prevalence rate, but the difficulty of recalling the number of instances produces an underestimate of chronicity. To deal with this problem, the questions need to be repeated for the previous week and previous year (Straus, 1998). However, budget limitations restricted this study to the previous year

as the reporting period. Consequently, the chronicity data in this article must be regarded as minimum estimates.

Measures of Independent Variables

Age of Child. The analyses of age differences in CP used 1-year age intervals (from under 1 through 17). The analysis of the interaction of age with the other independent variables grouped the children into the following six categories in order to have enough cases per cell to be statistically reliable: Infants (0–1), toddlers (age 2–4), early primary school (age 5–8), later primary school (age 9–12), and teens (age 13–17).

Age of Parent. Three age categories were used: 18–29, 30–39, and 40 and over.

Single Parent. This variable indicates whether the child was living with only one parent, versus all other living arrangements.

Socioeconomic Status. SES was measured by a factor score obtained by a principle components analysis of the respondent's education and income. The factor score was then coded into quintiles in order to have enough cases per cell for the ANOVA.

Ethnic Group. Ethnic group was included in the analysis with three categories. Euro-Americans were coded as 1, African Americans as 2, and all other ethnic groups as 3 because there were not sufficient cases to make finer differentiations.

Gender of Parent and Child. Girls were coded as 1 and boys as 0. Mothers were coded as 1 and fathers as 0.

Region. The Northeast was coded as 1, the Midwest as 2, the South as 3, and the West as 4.

Data Analysis

Consistent with the emphasis on describing the prevalence of CP rather than testing a theoretical model, ANOVA was used as the main mode of analysis because it provides the observed mean CP for children of each age and each category of the other independent variables, and for the interactions of these variables. The ANOVAs were computed using the "regression approach" option in SPSS/PC, namely, "All effects are assessed simultaneously, with each effect adjusted for all other effects in the model" (Norusis, 1992, p. 257). Thus, the test for each independent variable controls for the other in-

dependent variables, and the means were adjusted to control for the other independent variables.

The *N* for the child age trend analyses of prevalence is 991. The analysis of the chronicity of CP are based on the 609 cases where CP was used at least once. For the ANOVA relating differences in characteristics of the family and child to the prevalence of CP, the analyses of prevalence are based on 978 cases. The ANOVA for chronicity is based on 602 cases. The number of cases for each category of the independent variables are given in Table II. The ANOVAs were restricted to main effects and two-way interactions because higher order interactions would have resulted in empty cells and singular variance-covariance matrices.

RESULTS

Age of Child and Corporal Punishment

The age of the child is uniquely important for understanding the place of CP in the socialization of American children. This is because of the tremendous variation by age and, as indicated earlier, because the age at which CP is considered appropriate has

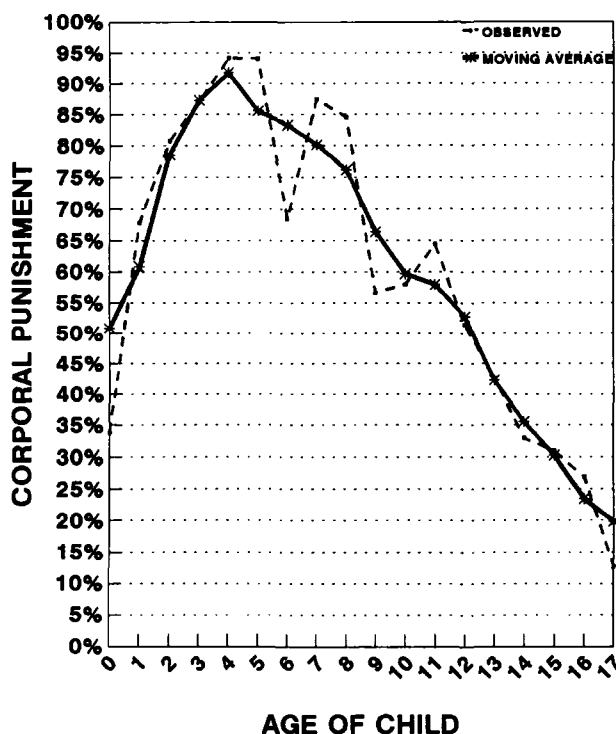


Fig. 1. Prevalence of corporal punishment by child's age.

recently become a focus of attention. Previous research indicates that CP increases from infancy to age 2, stays about the same for ages 3 through 5, and decreases steadily from age 5 through 17 (Bachman, 1967; Straus, 1991, 1994a; Wauchope & Straus, 1990), and that pattern was expected to hold for this sample.

Age and Prevalence of Corporal Punishment

In Figure 1 the dashed line is for the observed means and the solid line plots the moving average. (The moving average controls for random fluctuations by combining the mean of the observed mean for each age and the age just below and just above.) Figure 1 shows that just over a third of infants (children under 1 year of age) were hit by their parents. The rate then rises to a peak at ages 4 and 5, when

Table II. Number of Cases in Categories Used for ANOVAs

Characteristic and category	No. of cases	
	Table III	Table IV
Age of child		
0-1	92	43
2-4	190	166
5-8	230	191
9-12	228	131
13-17	246	70
Gender of child		
Male	503	320
Female	483	282
Gender of respondent		
Male	333	181
Female	653	420
Age of respondent		
18-29	224	171
30-39	438	285
40+	323	146
SES quintiles		
1 Low	203	148
2	139	81
3	228	145
4	226	126
5 High	189	101
Ethnic group		
White	817	480
Black	125	97
Other	44	25
Single parent		
Yes	324	207
No	662	395
Region		
NE	190	101
Midwest	252	159
South	328	223
West	215	119

94% of parents said that, during the previous 12 months, they had used one or more of the types of CP included in the CP scale. From there on, the rate declined steadily to age 17. However, it is important to note that as late as age 13, over 40% of parents used CP as a disciplinary technique.

Age and Chronicity of Corporal Punishment

Although Figure 1 indicates how many children were hit at each age, it does not indicate how often parents hit the children in this study. This information is given in Figure 2. It refers to those parents who used CP at least once during the previous year and gives the mean number of times they reported using CP. Figure 2 shows that CP was most chronic by parents of 2-year-old children. They reported using CP an average of 18 times during the previous year. The chronicity of CP declined from there on, to a mean of six times per year by parents of 14-, 15-, and 16-year-old children.

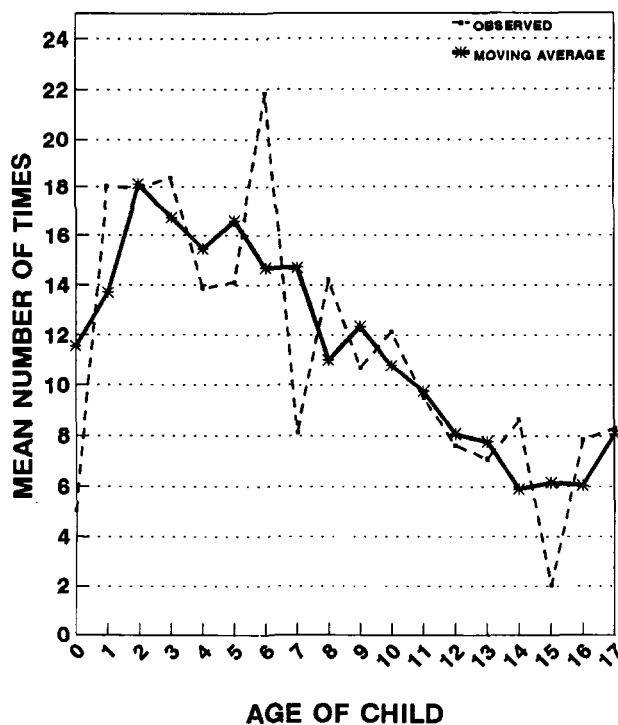


Fig. 2. Chronicity of corporal punishment by child's age.

Age Differences and Severity of Corporal Punishment

Table III gives the percentage of parents who used ordinary CP and more severe types of CP, and also two other disciplinary tactics. It uses age categories rather than 1-year age intervals because, as explained in the Method section, single-year categories produced too many empty cells for the more rarely occurring types of CP.

Comparing parts A and B of Table III reveals a developmental pattern. The milder forms of CP in Part A (spanking and slapping) were used most often with toddlers (ages 2–4). The more severe and less culturally approved forms of CP (see Method section) in Part B of Table III were most prevalent in middle childhood (ages 5–12 in Table III). Teenagers had the lowest prevalence rates, but in our opinion were still remarkably high.

Hitting a child on the bottom with objects such as a belt, hairbrush, or stick was, presumably, extremely common as recently as the 1940s. Even as recently as the 1970s, two thirds of a random sample of the population of Texas believed that hitting a child with such objects is acceptable (Teske & Parker, 1983). Table III indicates that actual use of belts and paddles has also not disappeared. More than one in four American parents reported having used such objects on a child age 5 to 12 in 1995.

The least frequent forms of CP were slapping on the face, head, or ears and pinching. Except for infants, from 3 to 8% of children of all age groups experienced these two forms of CP.

Part C of Table III includes two important disciplinary tactics that do not fit neatly into the categories "minor" and "severe" CP. The first of these, shaking a child, can cause brain injury or death to children under 2. So it is an indicator of child abuse rather than CP for children that young. Although 4.3% of this national sample reported shaking a child that was under 2, none of the cases of shaking were for infants. On the one hand, this makes the statistic less ominous. On the other hand, it makes the rate for the 12- to 23-month-old children 10.3%. Looking across the Shaking row of Table III, about 1 of 10 parents of children of all ages except infants and teens used shaking as a mode of CP.

The Threatened to Spank row of Table III describes the prevalence of a tactic that, strictly speaking is a form of verbal aggression, not an act of CP as previously defined. It was therefore not one of the

Table III. Percentage of Parents using Specific Acts of Corporal Punishment by Age of Child

Type of corporal punishment	Age of child					F	p<
	0-1	2-4	5-8	9-12	13-17		
A. Ordinary							
Spank on bottom with hand	31.8	72.1	71.2	43.1	14.0	64.6	.01
Slap on hand, arm or leg	36.4	63.3	47.5	26.9	16.2	28.5	.01
B. Severe							
Hit on bottom with object	2.5	18.1	28.4	28.5	15.6	11.3	.01
Slap on face, head or ears	0.5	4.8	6.9	2.9	5.8	2.6	.02
Pinch	2.8	2.8	7.9	5.1	2.3	2.8	.03
C. Other							
Shake	4.3	12.8	10.8	11.4	5.7	3.0	.02
Threatened to spank	22.8	65.5	70.7	55.6	38.9	26.8	.01

items in the CP scale used to obtain the prevalence rates in Figures 1 to 3. It is included in Table III, however, because it is a form of verbal aggression that often leads to the actual use of CP and because it is so frequent right up through the teen years.

Other Child and Parent Characteristics Associated with CP

The analyses in this section are based on ANOVAs using eight independent variables, as described in the Method section. The tests of significance for each of the independent variables therefore controlled for the level of all the other variables in the analysis. The means for each variable in this section have been adjusted for the level of the other variables and therefore describes the net effect of the variable after controlling for the other independent variables. The numbers for each category of the variables are given in Table II.

Age of Parent

Studies of three nationally representative samples of parents found that the younger the parent, the greater the prevalence of CP (Day, Peterson, & McCracken, 1998; Giles-Sims *et al.*, 1995; Straus, 1994a). For the current study, although there is a tendency for younger parents to be more likely to use CP, the second row of Table IV shows that the differences were not significant. However, row 2 of Table V shows a significant relation of parents' age to the *chronicity* of CP. Younger parents (18-29) used CP an average of 17.1 times during the previous 12 months in comparison to 12.6 times for those 30-39 and 9.1 times for parents over 40. This differ-

ence is not the result of younger parents having younger children (who, on average, are hit more frequently) because the analysis controlled for the age of the child.

Socioeconomic Status

Although some studies have found that the higher the SES, the less use of CP (Giles-Sims *et al.*, 1995), most have found no important difference (Erlanger, 1974a, 1974b). The present study found a significant main effect for SES (Table IV, row 3). Figure 3 shows that the percentage of parents using CP was highest among parents in the lowest quintile of the SES scale, and decreased with increasing SES. The solid line is for the observed percentage, and the dotted line gives the percentage after controlling for the other seven independent variables (age and gender of the parent and the child, the ethnicity of the child, single parents, and region). Comparing the two lines shows that controlling for these variables lowered the relation of SES to CP, but only slightly.

We also found significant interactions of SES with age of parent and age of child. The interaction of SES with age of the *parent* mainly occurred because for younger parents the percentage who used CP was high regardless of SES. Thus the main effect finding, that the higher the SES, the lower the percentage using CP, applies only to the two older age groups (ages 30 to 39 and 40+).

Ethnic Group

Previous research on ethnic differences in CP is also contradictory. For example, Straus (1994a) found no important difference between African

Table IV. Analysis of Variance of Prevalence of Corporal Punishment ($N = 978$)

Source of variation	df	Mean square	f	$p <$
Main effects				
Age of child	4	102762.392	63.407	.001
Age of parent	2	1598.307	0.986	.373
SES	4	5157.449	3.182	.013
Ethnicity of child	2	6434.534	3.970	.019
Gender of child	1	11947.483	7.372	.007
Gender of parent	1	6539.097	4.035	.045
Single parent	1	5132.157	3.167	.076
Region	3	10701.384	6.603	.001
Two-way interactions				
Gender of child \times age of child	4	2792.791	1.723	.143
Gender of child \times Gender of parent	1	166.825	0.103	.748
Gender of child \times Age of parent	2	1741.532	1.075	.342
Gender of child \times SES	4	2614.281	1.613	.169
Gender of child \times Ethnicity of child	2	2965.120	1.830	.161
Gender of child \times Single parent	1	388.886	0.240	.624
Gender of child \times Region	3	253.075	0.156	.926
Age of child \times Gender of parent	4	7003.780	4.322	.002
Age of child \times Age of Parent	8	770.383	0.475	.874
Age of child \times SES	16	3830.571	2.364	.002
Age of child \times Ethnicity of Child	8	2262.647	1.396	.194
Age of child \times Single parent	4	2929.269	1.807	.125
Age of child \times Region	12	3919.154	2.418	.004
Gender of parent \times age of parent	2	2994.410	1.848	.158
Gender of parent \times SES	4	3222.397	1.988	.094
Gender of parent \times ethnicity of child	2	3137.298	1.936	.145
Gender of parent \times single parent	1	1268.802	0.783	.377
Gender of parent \times Region	3	648.837	0.400	.753
Age of parent \times SES	8	3361.851	2.074	.036
Age of parent \times Ethnicity of child	4	599.639	0.370	.830
Age of parent \times Single parent	2	1098.502	0.678	.508
Age of parent \times Region	6	2870.937	1.771	.102
SES \times Ethnicity of child	8	1111.666	0.686	.704
SES \times Single parent	4	2882.174	1.778	.131
SES \times Region	12	2232.964	1.378	.171
Ethnicity of child \times single parent	2	1851.213	1.142	.320
Ethnicity of child \times region	6	2414.525	1.490	.179
Single parent \times region	3	2404.452	1.484	.218

Americans and Euro-Americans, but Day *et al.* (1998) found more CP by African American parents, but only for children age 5 to 11 years; and among younger children, only for unmarried mothers. On the other hand, Deater-Deckard *et al.* (1996) and Giles-Sims *et al.* (1995) found more CP by African American parents.

Row 4 of Table IV shows that for this sample there was a significant difference between ethnic groups, even after controlling for seven other variables, including SES. Seventy percent of African American parents reported using CP during the previous year, compared to 62% of other minority parents, and 60% of Euro-American parents. (Before controlling for SES and other demographic variables listed in Table IV the eth-

nic differences were even larger. 77% of African Americans reported using CP during the previous 12 months compared to 59% of Euro-Americans.)

Despite these ethnic differences in the prevalence of CP, the chronicity with which CP was used by parents in the three groups did not differ significantly.

Boys and Girls

Previous research indicates that boys experience more CP than girls at all ages (Day *et al.*, 1998; Giles-Sims *et al.*, 1995; Graziano & Namaste, 1990; Straus, 1994a). In view of the movement toward treating boys and girls more similarly, prior findings might

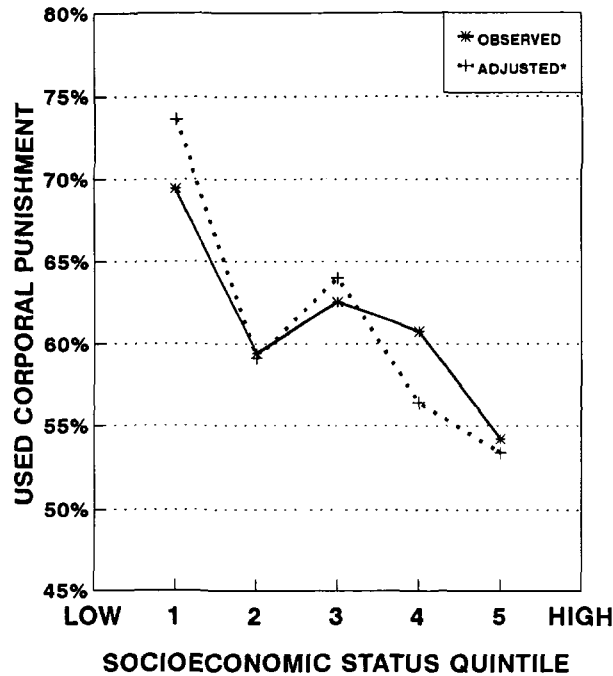
Table V. Analysis of Variance of Chronicity of Corporal Punishment (N = 602)

Source of variation	df	Mean square	f	p<
Main effects				
Age of child	4	671.132	3.559	.007
Age of parent	2	1778.131	9.429	.001
SES	4	306.476	1.625	.167
Ethnicity of child	2	20.060	0.106	.899
Gender of child	1	1042.373	5.528	.019
Gender of parent	1	180.321	0.956	.329
Single parent	1	13.879	0.074	.786
Region	3	176.025	0.933	.424
Two-way interactions				
Gender of child × Age of child	4	558.521	0.962	.020
Gender of child × Gender of parent	1	42.521	0.225	.635
Gender of child × Age of parents	2	151.355	0.803	.449
Gender of child × SES	4	153.848	0.816	.515
Gender of child × Ethnicity of child	2	224.182	1.189	.306
Gender of child × Number of parents	1	6.832	0.036	.849
Gender of Child × Region	3	69.085	0.366	.777
Age of Child × Gender of parent	4	112.081	0.594	.667
Age of Child × Age of parents	8	311.762	1.653	.108
Age of Child × SES	16	250.500	1.328	.175
Age of Child × Ethnicity of child	8	261.742	1.388	.199
Age of Child × Number of parents	4	95.515	0.507	.731
Age of Child × Region	12	169.428	0.898	.549
Gender of parent × age of parent	2	163.375	0.866	.421
Gender of parent × SES	4	258.328	1.370	.243
Gender of parent × Ethnicity of child	2	68.094	0.361	.697
Gender of parent × Number of parents	1	174.996	0.928	.336
Gender of parent × Region	3	347.194	1.841	.139
Age of parent × SES	8	148.033	0.785	.616
Age of parent × Ethnicity of child	4	60.522	0.321	.864
Age of parent × Number of parents	2	61.344	0.325	.722
Age of parent × Region	6	240.017	1.273	.268
SES × Race of child	8	226.790	1.203	.296
SES × Single parent	4	184.546	0.979	.419
SES × Region	12	243.602	1.292	.220
Ethnicity of child × Single parent	2	144.996	0.769	.464
Ethnicity of child × Region	6	110.746	0.587	.741
Single parent × Region	3	458.068	2.429	.065

not apply to this sample. However, row 5 of Table IV shows that the difference in the percentage of boys and girls who experienced CP during the year of this survey was statistically significant. Parents reported using CP with 65% of boys compared to 58% of girls. As for chronicity, Table V indicates a significant difference. Of the boys who experienced CP, it occurred an average of 14.3 times, compared to an average of 12.9 times for girls. In addition, Table V shows a significant interaction between gender of child and child's age. The deviation from the overall pattern was for children ages 2 to 4. At that age there was no difference at all in the chronicity of hitting boys and girls. Perhaps this is a ceiling effect because at that age, the prevalence rate was 94%.

Mothers and Fathers

Mothers have been shown to use CP more than fathers (Straus, 1994a). For the present sample, row 6 of Table IV shows that, of the fathers interviewed, 58% reported using CP in the previous 12 months, compared to 64% of the mothers. Table V also shows a significant interaction between gender of the parent and the age of the child: children ages 9–12 are an exception to the main effect finding that more mothers use CP than fathers. For this age group an almost identical percentage of mothers and fathers used CP during the year of the survey (57% of mothers and 58% of fathers).



* ADJUSTED FOR AGE AND SEX OF PARENT AND CHILD, RACE OF THE CHILD, SINGLE PARENT, AND REGION

Fig. 3. Prevalence of corporal punishment by socioeconomic status of family.

Single Parent

Although we found no research that directly demonstrates a relationship between single parenthood and CP, research on "physical abuse" (i.e., more severe physical assaults on children) shows higher rates for single parents (Bolton & MacEachron, 1987; Gelles, 1989; Giles-Sims & Finkelhor, 1984). These findings can plausibly be extended to CP because single parents are under greater stress and may therefore be more likely to use CP. Although this may be plausible, we did not find a significant difference between parents who were living with a partner as compared to single parents and there was no significant difference in the chronicity of CP among those who used CP.

Region

Research on regional differences in attitudes and norms concerning CP has consistently shown more widespread endorsement of CP in the South than in other regions (Ellison & Sherkat, 1993; Flynn, 1993;

Straus & Mathur, 1996). These studies also found that CP was least strongly endorsed in the Northeast. In addition, Giles-Sims *et al.* (1995) found this regional pattern for actual use of CP. For the present study, row 8 of Table IV indicates a significant regional difference. Specifically, the highest prevalence of CP was in the South (69%) and the lowest in the Northeast (53%). Table IV also shows a significant interaction between age of child and region: The West had the lowest rates of CP for the youngest and oldest children. The reason for this interaction is unclear.

Although the regions differed significantly in the percentage of parents who used CP, there was not a significant difference between regions in the chronicity of CP.

DISCUSSION

This research provides estimates of the prevalence, chronicity, severity, and duration of CP based on telephone interviews with a nationally representative sample of 991 American parents. It also explored the extent to which eight characteristics of the children and their families were related to the prevalence and chronicity of CP, after controlling for the other seven characteristics.

Prevalence Duration, Chronicity, and Severity of Corporal Punishment

Prevalence and Duration

We found that almost all toddlers (94%) were hit by parents (usually hand slapping or spanking), and that for more than a third (35%) CP starts as an infant. This is a lower rate of hitting infants than found by Korsch, Christian, Gozzi, and Carlson (1965) but that is to be expected because the Korsch *et al.* study was for a time when CP was more prevalent and the parents were predominantly low in education and income.

Our informal observation suggests that CP of infants is typically a slap on the hand for something such as pushing food off a tray or touching something forbidden. Although this is not a severe form of CP, the fact that over a third of a nationally representative sample of parents hit infants in any way is a startling and sad characteristic of American patterns of child rearing, and one that, in our opinion, needs immedi-

ate attention. Moreover, the 35% should be regarded as a minimum estimate because, in addition to the reasons for underestimating CP with young children given in the limitations section, the underestimate is made even more likely because there is less normative support for CP of infants compared to toddlers and therefore a greater likelihood of nondisclosure.

At age 12, just over half of the parents were using CP. This can be interpreted as indicating that CP typically continues for 12 years. It means that, although about half of parents stop hitting their child by age 12, CP continues beyond that age for the other half. About one out of five parents of children ages 16 and 17 reported hitting them that year.

Chronicity

At every age, the more often parents use CP ("chronicity"), the greater the probability of subsequent behavior problems such as aggression and other antisocial behavior, anger and alienation, lower academic achievement, and depression (Straus, 1994a; Straus & Paschall, 1998; Straus *et al.*, 1997). Given the fact that chronicity affects the risk of harmful side effects, it is fortunate that despite the near universality of hitting toddlers, there are large differences in how often the parents who use CP do it. For example, among children hit as teenagers, chronicity ranged from just once that year to 35 times, and the mean was 6.7 times (*Mdn* = 4). This indicates that when parents hit a teenager, it is not usually, as some might think, an isolated event triggered by some extreme circumstance, but rather a recurring pattern of violence in the relationship of these parents with their child.

The chronicity estimates for toddlers in this study (e.g., 18 times in the past year for 2-year-olds) are almost certainly vast underestimates because the study used a 1-year reporting period. Studies using a 1-week reporting period (Giles-Sims *et al.*, 1995; Holden *et al.*, 1995; Straus *et al.*, 1997) find means of 2 to 3 times a week, which if multiplied by 52, implies a seven times higher level of chronicity. We think the underestimate occurs because CP is such a taken-for-granted and unremarkable event that parents do not realize how often they do it.

Severity

Although most CP is in the form of slapping hands or buttocks, use of traditionally approved im-

plements such as a hairbrush, paddle, stick, or belt has by no means died out. Use of such implements is still legal in every state, provided there is no injury, or in some states no mark that lasts more than about a day. At the same time, there is a growing belief that using a belt or paddle on a child's bottom is physical abuse. If use of these implements were illegal, the results of this study would lead one to conclude that, among parents of children in middle childhood, more than a quarter engaged in a criminal assault on their child during the year of this study. In addition, 10% of parents of a 1-year-old child reported shaking the child, which is an act that carries a high risk of brain injury for children that young.

Minimum Estimates

Although the rates just presented are extremely high, they are probably minimum estimates of the experience of American children. In part this is because of nondisclosure. CP is culturally normative and expected, and parents who never use CP are the objects of informal pressures to spank a persistently misbehaving child (Carson, 1986; Straus, 1994a; Straus & Mathur, 1996). Thus, for children within the culturally approved ages, intentional nondisclosure was probably minimal. However, for infants (i.e., under 1 year) and teenagers, the absence of cultural approval probably means that some CP was not reported.

The 1-year recall period used for this study, although probably providing the best estimate of *prevalence*, results in a large underestimate of *chronicity*, especially for toddlers. As suggested previously, at this age, CP tends to be such an everyday occurrence (almost literally as well as figuratively) that many parents would have to use a calculator to provide a reasonable annual estimate. The fact that many parents do not realize how often they use CP was demonstrated in a pioneer study of CP which found that the frequency of spanking as recalled during an interview was only one sixth of the frequency as recorded in a parenting diary (Goodenough, 1931/1975). On the other hand, because many toddlers and most older children are not hit every week, the best estimate of prevalence probably requires data for both a 1-week and a 1-year reporting period (Straus, 1998).

The budget limitations of the study restricted the interviews to only one parent in each family. If the other parent had been interviewed, the prevalence rate would be higher because there are families where one parent uses CP and the other does not.

For the more typical situation, where both parents use CP, chronicity would have been higher.

Relation of CP to Child and Family Characteristics

In addition to investigating the relation of the age of the child to CP, we examined seven other characteristics of the children and the families.

Boys and Girls. Our finding that boys were hit more than girls is consistent with the six previous studies cited earlier, and even with a study of homicides of infants (Straus, 1987). Despite a trend toward equality in methods of bringing up boys and girls, boys are still subjected to more violent socialization. An ironic aspect of this gender difference in socialization is that CP is intended to produce a better behaved child, but numerous studies show that boys tend to have higher rates of misbehavior than girls. Perhaps there is an innate tendency of boys to be less compliant and this leads to the greater use of CP on boys. Whatever the role of genetic difference, socialization differences are also likely to be important. For example, a longitudinal study of antisocial behavior in a large national sample (Straus *et al.*, 1997) found that CP was counterproductive in the long run, and that the counterproductive effect was stronger for boys than for girls. Because boys start experiencing more CP in infancy, these findings suggest that the greater misbehavior rate of boys may reflect their higher rate of having been exposed to this form of violent socialization.

Mothers and Fathers. In this study as in many others, more mothers than fathers used CP. However, mothers who used CP did not do it more often than fathers. Perhaps in some families the father is the disciplinarian and this may explain why their rates are close to those of mothers despite spending less time with children. It also needs to be noted that the difference between mothers and fathers is only six percentage points (64% for mothers and 58% for fathers). If, for example, mothers spend twice the amount of time with children as fathers, the rate for fathers would need to be doubled to equalize the time at risk. That would raise the rate for fathers to over 100%. Although we do not have any reasonable way of statistically adjusting for time at risk, one might infer that, given the much greater time at risk for mothers, the small difference between mothers and fathers indicates a lower propensity to hit children by mothers than fathers. That interpretation is consistent with studies showing that mothers have

less favorable attitudes to CP than fathers (Straus, Gelles, & Steinmetz, 1980; Straus & Mathur, 1996). It is also consistent with research by Check (1979). Check compared male and female teachers, which equalizes time exposure, and found a higher rate of CP by male teachers.

Age of Parent. Although previous research found that a larger percentage of younger parents (those ages 18 to 29) hit their children than older parents (Day *et al.*, 1998; Giles-Sims *et al.*, 1995; Straus, 1994a), there was no significant difference for this sample. However, we did find a significant difference in chronicity. That is, among those who used CP, younger parents did it 38% more often than older parents. This is consistent with a large literature showing that youthfulness is associated with all kinds of violence from shoves to murder (Sampson & Laub, 1992), and is especially strongly related to intrafamily violence (Connelly & Straus, 1992; Stets & Straus, 1990). Among the explanations offered for youthful propensity to violence are lower social integration, lack of experience and judgment, and greater alcohol abuse. There are many other possibilities; for example, younger parents may be under more economic stress.

Socioeconomic Status. There are important theoretical reasons for expecting CP to be more prevalent among the lowest socioeconomic sectors of society. For example, low SES parents are under greater stress and have more children, both of which are related to use of CP (Straus & Asdigian, 1997; Turner, *In press*). In addition, low SES families tend to reside in areas of high violence. Consequently, despite the inconsistency of previous research, we expected to find, and did find, that the lower the SES, the higher the percentage of parents who used CP. In addition, we also found significant interactions of SES with the age of the parent and with the age of the child. The interaction with age of parent occurs because, for younger parents (18–29), there was no relationship between SES and CP. In all five of the SES quintiles, young parents had high rates of hitting children. This could be due to the combination of younger parents tending to have children in the toddler ages and the fact that almost everyone (94%) hits toddlers. However, having younger children is not likely to be the explanation for the greater use of CP by young parents in this study because we controlled for age of the child. Perhaps the high propensity to violence by young people overrides the violence reducing effect of high SES.

Ethnic Group. Our initial comparison of African

American parents with Euro-American parents found a large difference in use of CP. After controlling for SES and demographic differences, this was reduced to a 10% difference (70% for African American parents compared to 60% for Euro-American parents). The significant difference after controlling for these variables is consistent with the evidence that African Americans endorse CP more strongly than other ethnic groups (Straus & Mathur, 1996). However, despite the larger percentage using CP, and the greater support for CP by African Americans, those who used CP did not do it more frequently than did Euro-American parents who used CP. There is debate over whether the approval and use of CP by African Americans is a legacy of their culture prior to enslavement or a legacy of the physical brutality to which African Americans were subjected during slavery (Alvy, 1987; Grier & Cobbs, 1968; Polite, 1996), but that issue cannot be addressed with the data from this study.

Single Parents. Although on the basis of stress theory, single parents might be expected to be more likely to use CP, no relationship was found. If stress is a determinant of CP, perhaps the stress of bringing up children without the financial and supervisory contributions of a partner are counterbalanced by being freed from a stressful marriage.

Region. As in previous studies, we found that the highest rate of CP was by parents in the South and the lowest in the Northeast. However, there were only small and not significant differences in chronicity. So, although more Southern parents use CP, they do not do it more often.

Chronicity is Less Variable

We examined the relation of eight child and family characteristics to CP. Six of the eight were significantly related to the prevalence of CP, but only three of the eight were related to the chronicity of CP. For example, although more low SES parents used CP, high SES parents who used CP hit their children as frequently as low SES parents who also used CP. Moreover, among the three variables that were significantly related to the chronicity of CP, there seemed to be less difference between categories of those variables than there was for prevalence. Research on why chronicity is relatively constant may lead to important insights about the processes underlying parental use of CP.

The Prevalence of Corporal Punishment

High Rates for All Categories of Children and Families. Although a number of statistically significant differences have been reported, with the exception of the age of the child, the findings are really about differences in the degree to which CP is prevalent, not about whether CP occurs under some conditions and rarely under others. For example, 69% of parents in the South hit their child during the previous 12 months, compared to 53% in the Northeast. However, it is equally important to read this finding as showing that over half of parents in the "low" region (the Northeast) hit their child in the previous 12 months. Moreover, that is the average for children of all ages. For toddlers, the rate is 90% in the South and 74% in the Northeast. Thus, almost all children in the South experience violent child rearing, but so do three out of four children in the least violent region of the United States.

Limitations

Sample and Reporting Period. Although the sample for this study is large and as nationally representative as the best current technology permits, the sample does not include the 6% of households that lack telephones.

Underestimation of CP for Toddlers. Given previous studies which found an average of two to three spankings a week for toddlers, it is unrealistic to expect parents of toddlers to be able to recall and report how many times they used CP in the past year.

Individual Differences. One can also go too far in emphasizing the near universality of CP. Almost all American children may have been hit at some time in their lives by their parents, but for some it is a rare occurrence and for others it is a part of their daily experience. Most are spanked or slapped on the hand, and more than one out of four are hit with hairbrushes or belts. The large child-to-child variation also has important implications. If, as seems to be the case, the effects of CP are a "dose"-related phenomenon, the risks to children from CP will vary widely. It may take a relatively large dose to have an adverse side effect. However, the available evidence is equivocal and research is needed on whether the effects of CP are linear or, for example, exponential.

Other Dimensions of CP. Although this study provides data on four dimensions of CP (prevalence,

chronicity, severity, and duration), it does not present a full picture of this mode of discipline. A full understanding requires information on other important dimensions, for example, impulsivity (Straus & Mouradian, 1998), whether CP is accompanied by explanation, consistency, and whether CP is viewed as legitimate by the parent, the child, and the community.

Implications for Professional Education and Clinical Practice

The implications to be suggested are based on the belief, stated in the Introduction, that parents should never use CP. This belief is an extrapolation from a large body of research summarized in a meta-analysis by Thompson (in press). Thompson analyzed 88 studies and 117 effect size estimates, and found that "although . . . corporal punishment does secure children's immediate compliance, it also increases the likelihood of eleven negative outcomes."

The evidence, however, is less conclusive than this suggests because, despite a degree of consistency of findings that is rare in social science research, almost all the studies were cross-sectional, and even the longitudinal studies failed to control for Time 1 misbehavior, thus leaving unresolved the crucial issue of causal direction. However, that has been changed by five recent longitudinal studies (Brezina, 1999; Gunnoe & Mariner, 1997; Simons, Lin, & Gordon, 1998; Straus & Paschall, 1998; Straus *et al.*, 1997). Each controlled for misbehavior at Time 1 and found that the more CP a child experienced to correct that misbehavior at Time 1, the greater the extent of maladaptive behavior at Time 2. In short, these studies indicate that CP is counterproductive. It *increases* the probability of aggressive and other antisocial behavior and also increases the risk of other types of maladaptive behavior as a child and as an adult. But these longitudinal studies are also not without limitations. For example, no longitudinal study to date has provided data on children who were *never* spanked. Consequently, the empirical evidence indicates only a need to reduce the frequency and severity of CP. Our belief that children should never be hit represents a plausible extrapolation from these data and from our values, just as the view that it is sometimes necessary to spank represents the scientifically unproven values and beliefs of those who hold that view.

Fortunately, the issue of reduction versus total elimination of CP does not need to be resolved for

the results of this research to have important implications for parents and clinical practice. This is because the results indicate such a high prevalence and chronicity of CP. Consequently, even those who believe that CP is sometimes necessary are likely to agree on the need for remedial steps. For example, the pro-CP members of the American Academy of Pediatrics conference on discipline believe that CP should be confined to children ages 2 to 6 years and that only the open hand should be used, and even this should be done only rarely (Friedman & Schonberg, 1996). By contrast, this study revealed high prevalence rates for children outside the recommended ages: 35% for *infants*, 60% for both 1- and 10-year-olds, 44% for 13-year-olds, and 20% for 16- and 17-year-old children. In addition, for 28% of children ages 5 to 12, CP was not restricted to the open hand but included being hit with objects.

Make Information on CP Available. The extremely high frequency and severity of CP by parents of all SES and ethnic groups and regions applies, on average, to both mothers and fathers, to parents of all ages, to both boys and girls, to all ethnic and SES groups and regions. This needs to be part of the information base of parents, researchers, and clinicians. One obvious way to accomplish this would be an increase in the space devoted to CP in child development and child psychology textbooks from the present average of three tenths of a page (described in the Introduction). If that were to occur, we believe the information would be perceived as so inconsistent with the now implicit standard of "only rarely," and only with children ages 2 to 6 (Friedman & Schonberg, 1996), that it will lead many parents to reconsider the extent to which they use CP, and lead many clinicians to include information about CP in their assessment and work with clients.

Developmentalists Should Educate Parents About the Dangers of CP. The evidence that CP is an almost universal aspect of American parental behavior (although to widely varying degrees), together with the increasingly conclusive evidence that CP has harmful side effects, suggests that developmentalists should address CP in their research and clinical work. We recommend determining the extent to which a client uses CP as a routine procedure, and discussing the pros, cons, and alternatives with parents. In our opinion, and that of the American Academy of Pediatrics (1998), the evidence now available requires unambiguously recommending little or no use of this child-rearing practice which, when stripped of euphemisms such as "a good hard spanking," "physical

punishment,” and “a quick swat on the behind,” can be seen as a culturally approved system of physical attacks on children.

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