## Nonabusive Physical Punishment and Child Behavior among African-American Children: A Systematic Review

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Background: The use of nonabusive physical punishment as a form of discipline has been greatly debated in the scientific and popular literature. Impact on child behavioral outcomes has frequently been found; however, the effects of its use are not clear, particularly for African-American children. This systematic review of the literature examined the impact of exposure to nonabusive physical punishment on the behavior of African-American children.

Methods: A search was conducted of PubMed and PsycInfo from 1970 to 2000 using the key terms: corporal punishment, physical punishment, disciplinary practices, and discipline and parenting. Studies that described ethnicity of the population and included a majority of a well-described African-American population were included. Each study was required to include measurable data on child behavioral outcomes and at least one measure of discipline that assessed use of nonabusive physical punishment in children 0–14 years of age.

Results: All seven included studies used lower socioeconomic status (SES) and/or urban African-American populations. Study design and rural versus urban populations differentiated beneficial and detrimental outcomes. In all longitudinal studies, African-American children had beneficial or neutral outcomes.

Discussion: This review suggests that it is possible that there are benefits to nonabusive physical punishment for African-American children. However, needed are further longitudinal studies that better assess the multiple confounders that impact the use of discipline, such as SES, parental education level, and exposure to community or domestic violence.

**Key words:** discipline **■** physical punishment **■** African Americans

© 2004. From the Children's National Medical Center, George Washington University and Children's Research Institute, Children's National Medical Center, Washington, DC (Horn, Joseph); and Johns Hopkins University, Baltimore, MD (Cheng). Send correspondence and reprint requests for J Natl Med Assoc. 2004; 96:1162–1168 to: Ivor Braden Horn, Children Health Center at Good Hope Road, Children's National Medical Center, 2501 Good Hope Road SE, Washington, DC 20020, phone: (202)884-6908; fax: (202) 884-2592; e-mail: ihorn@cnmc.org

## INTRODUCTION

The American Academy of Pediatrics recommends that parents be encouraged and assisted to develop methods other than spanking for managing undesirable behavior by their children. This recommendation is based on the results of research linking exposure to physical punishment to future antisocial behavior, aggression, and psychiatric disorders.14 This recommendation is consistent with a current trend directing parents away from the use of any form of physical punishment; however, studies have shown that the majority of Americans believe the use of physical punishment in child rearing is an acceptable behaviors. Wauchope and Straus' reported that there is a normative expectation in American society that parents will use physical punishment with their children. For African Americans, studies have indicated a preference for using "harsh" or "authoritarian" forms of discipline that often include physical punishment.<sup>6,7</sup> While there is general agreement regarding the detrimental effects of child abuse, controversy remains regarding the use of nonabusive forms of physical punishment, such as spanking.8 While Larzelere's8 1996 review concluded that there is insufficient research documenting negative outcomes of nonabusive physical punishment to exclude it as a disciplinary option, he did not address the issue of culture and its impact of child behavioral outcomes. Furthermore, it has been suggested that nonabusive physical punishment may be linked to positive outcomes in some populations.8 Because parenting occurs in a sociocultural context, 9,10 recommendations about what constitutes an effective approach to discipline may not be generalizable to all populations between and or within similar cultures.11,12 Following a conference on the short- and long-term consequences of exposure to physical punishment sponsored by the American Academy of Pediatrics, nine recognized experts in research on discipline endorsed a statement that "efforts at reducing the use of corporal punishment by people of color need to proceed sensitively, given the complete lack of relevant research and the distinctive contexts, meanings,

pressures, and resources for parental discipline in ethnic communities." A subsequent conference sponsored by National Institute of Child Health and Human Development and Child Well-Being Research Network on "Research on Discipline: The State of the Art, Deficits, and Implications" generated discussion of the cultural context in which discipline occurs, as well as other concerns related to interpreting results of research on discipline. <sup>13</sup>

To that end, the purpose of this article is to discuss studies from peer-reviewed journals that have investigated behavioral outcomes of African-American children who have experienced nonabusive physical punishment. This article includes cross-sectional and longitudinal studies and a broader definition of nonabusive physical punishment allowing for the inclusion of additional studies not previously reviewed.

### **METHODS**

A systematic review was conducted of all relevant journal articles on physical punishment in the home from 1970–2000, using a computer search of PubMed and PsycInfo. Articles were identified using the following key words: corporal punishment, physical punishment, disciplinary practices, and discipline and parenting. A review was also done of relevant references in these articles, and an author search was conducted for all authors with more than one relevant article. Differences of opinion regarding inclusion were resolved by consensus of the three authors.

Articles were initially chosen for review based on the following inclusion criteria:

- 1. Publication in a peer-reviewed journal,
- 2. English language,
- 3. Focus on nonabusive discipline in the home,
- 4. Populations within the United States,
- 5. Delineation of the ethnicity of the populations studied,
- 6. Inclusion of measurable data on child behavioral outcomes,
- 7. Inclusion of at least one measure of discipline that assessed use of nonabusive physical punishment in children 0–14 years of age, and
- 8. Majority African-American population, or detailed description of the African-American participants when compared with other populations.

Finally, the three authors reviewed the selected articles independently.

Articles were reviewed using a detailed abstraction form to assess study design, study population, measures of physical punishment, and child behavioral outcomes. Because of the limited number of articles, a variety of definitions of nonabusive physical punishment were used. For this review, use of nonabusive physical punishment was defined as self-reported use or observation of "spanking" or physical punishment.

Consistent with previous definitions,<sup>8</sup> a study was considered to document a beneficial relationship (listed as positive outcome in table) if nonabusive physical punishment were significantly correlated with a positive behavior (e.g., improved school performance). If nonabusive physical punishment were significantly correlated with a negative behavior (e.g., increase in antisocial behavior), the study was described as documenting a detrimental relationship (listed as negative outcome in the table). Finally, a study was considered to have a neutral outcome if there was no significant correlation to a negative or positive outcome, or if there was correlation to both negative and positive behavioral outcomes for African-American children.

### **RESULTS**

A total of 1,459 titles were identified using four key words and phrases in PubMed and PsycInfo. Using the inclusion criteria, 205 abstracts were obtained. Review of abstracts resulted in 53 publications retained for full review. The remaining studies were excluded as a result of inadequate description of a physical punishment measure, lack of a majority African-American population, failure to delineate outcomes for African-American children, or use of corporal punishment during adolescence. Of these. only five articles met all inclusion criteria. A review of the references of related articles resulted in the addition of two articles that also met the inclusion criteria. Of the seven articles, three were longitudinal studies,18-20 and four were cross-sectional studies.14-17 Three studies<sup>14,15,17</sup> were limited to African-American populations. The remaining studies<sup>16,18-20</sup> had predominantly African-American participants or study results that compared outcomes of African Americans to European Americans. These seven articles are summarized in Table 1.14-20

## **MEASURES**

All measures of nonabusive physical punishment were based on parental report or observation. Among the four cross-sectional studies, two studies<sup>14,17</sup> used modified subscales of the Parenting Dimensions Inventory, which has been validated

	33.0	Table 1. Characteristics of	
Study	Population Description	Measure of Physical Punishment	
Cross-Sectional Studi	es		
Barnett et al. 1998 <sup>14</sup>	69 four-to-five-year-old African- American children recruited from Head- Start-type programs in low-income, African-American neighborhoods in a large midwestern city	Acceptance subscale of the HOME Inventory: Items were assessed with yes-or-no answers based on mother response or direct observation. Results of the subscale (e.g., "Parent neither slaps nor spanks child during visit") were used for this review.	
Brody et al. 1998 <sup>15</sup>	156 six-to-nine-year-old African- American children from single-mother- headed families in rural southern counties	"No-nonsense parenting" as determined by in home rates of the Firm Parental Discipline (e.g., "parent uses physical restraint during visit) and Parental Warmth (e.g., parent caresses, kisses, or cuddles child during visit") of the HOME Inventory. High scores indicated high levels of both firm control and warmth.	
Magnus et al. 1999 <sup>16</sup>	261 urban second-to-sixth grade children (143 African-American) from highly stressed families	Use of physical punishment was measured using one question on how discipline works in the family and three questions on parent response to discipline situations. Low scores reflect punitive styles (e.g., physical punishment) and high scores reflect nonpunitive styles (e.g., talking).	
Longitudinal Studies			
McCabe et al. 1999 <sup>17</sup>	64 11-14 year-old African-American children recruited from sixth-grade classes at an urban university-affiliated public, charter middle school	Parenting Dimensions Inventory (e.g., "I hit my	
Deater-Deckard et al. 1996 <sup>18</sup>	566 children (100 African-American) recruited from three sites (Nashville and Knoxville, TN; and Bloomington, IN) during preregistration for kindergarten or on the first day of school	Use of physical punishment was measured using three assessment methods: an interviewer-rated semistructured interview, parent response to hypothetical vignettes, and parent report of how frequently discipline strategies of the aggression subscale of the Conflict Tactics Scale were used (the aggression subscale measures acts of physical discipline and violence—e.g., hitting and	
Gunnoe et al. 1997 <sup>19</sup>	spanking).  1,112 children (210 African-American) from a representative sample of U.S. families with oversampling of minority subgroups recruited for the National Survey of Families and Households  spanking).  Discipline was measured by response to the following interviewer question: "Sometimes children behave well and sometimes they on the or she behaved badly in the past week."		
McLeod et al, 1994 <sup>20</sup>	1,866 children (536 African-American) recruited for the 1988 National Longitudinal Survey of Youth (NLSY) born to women who had participated in the NLSY annually since 1979	Discipline was based on one item in the National Longitudinal Survey of Youth—parent response to the following question: "The number of times the mother spanked the child in the past week."	

Included Studies		
Child Outcomes Measures	Outcome of Physical Punishment	
	<b>T</b>	
<ol> <li>Attachment Status: Ainsworth's Strange Situation Procedure to assess attachment status</li> <li>Noncompliance: Child behavior during play</li> </ol>	Negative outcome: Securely attached children had parents who rated higher on acceptance (meaning they were less likely to spank) of the child as measured by the HOME inventory.	
<ol> <li>Self-regulation: Children's Self-Control Scale</li> <li>Cognitive competence: Woodcock Johnson Psychoeducational Battery (alpha &gt;0.80)</li> <li>Social competence</li> <li>Internalizing problems: Children's Depression Inventory (alpha=0.70)</li> </ol>	Positive outcome: Higher levels of "no-nonsense parenting" (more firm control and warmth) were associated indirectly with greater child social competence and directly with greater self-regulation.	
<ol> <li>School Adjustment: Teacher–Child Rating Scale</li> <li>School Adjustment: Child Rating Scale</li> <li>Social Problem Solving</li> <li>Realistic Control Measure</li> </ol>	Negative outcome: Parent discipline scores were significantly correlated with poor social problem solving skills in African-American children, but not for white children. There were no differences in discipline style between the African-American and white parents.	
Child Adjustment: Teacher–Child Rating Scale     Verbal Intelligence: Peabody Picture Vocabulary Test	Negative outcome: Corporal punishment related significantly and positively to acting out behavior in children. Corporal punishment did not predict shy/anxious behavior or social skills deficits in children.	
Externalizing Behavior: Child Behavior Checklist     Aggression: Peer Sociometric ratings	Positive outcome: Higher levels of physical punishment were associated with higher levels of child externalizing and aggression but only with white children. None of the physical discipline and externalizing correlations was significant for African-American children and the majority of correlations (seven of nine) were negative). African-American children receiving harsh physical punishment had lower aggression and externalizing scores.	
School Yard Fights     Antisocial behavior: Behavior Problems     Index (alpha=0.68)	Positive outcome: Spanking deterred subsequent fighting by African-American children and children age four-to-seven years and fostered fighting by children eight-to-11 years of age and by white children.  Though not statistically significant, associations between spanking and subsequent aggression in African-American children were primarily negative.	
Antisocial behavior: Behavior Problems     Index (alpha=0.68)	Neutral outcome: The frequency of spanking was strongly predictive of antisocial behavior regardless of race. Children who were spanked more frequently had higher levels of antisocial behavior than did children who were not spanked. After controlling for the effect of child behavior, spanking did not have an independent effect on African-American children's antisocial behavior. However, white children who were spanked more often displayed more antisocial behavior. For African-American children, antisocial behavior influenced parenting practices more than the reverse.	

with groups from diverse economic and cultural backgrounds. Two studies14,15 used the observational HOME Inventory measure to assess disciplinary practices. The HOME Inventory is a direct observational tool to assess the extent to which a family creates a stimulating environment for a preschooler.<sup>21</sup> For longitudinal studies, the time interval between measurement of physical punishment and child behavior ranged from 12 months to six years. Children were between the ages of four- and 10 years at the time that parental disciplinary practices were measured. Parents were asked to report on disciplinary practices in the last week to the last 12 months. Two of the three longitudinal studies 19,20 ascertained spanking based on a one-question parental report of recent spanking history. The reported Cronbach alpha of instruments ranged from 0.42–0.67. Outcome measures were provided by multiple sources (teacher, parent, peers, and child).

## **Study Design**

Both study design and urban/rural population were related to positive versus negative outcomes. All longitudinal studies compared behavioral outcomes of African-American children to European-American children. These longitudinal studies found physical punishment was related to positive or neutral behavioral outcomes for African-American children but not European-American children. Two longitudinal studies reported positive outcomes of 1) deterrence of subsequent fighting in African-American children who were spanked<sup>19</sup> and 2) decreased or insignificant change in externalizing behavior. 18 The remaining longitudinal study was neutral with no independent effect of spanking on child's antisocial behavior.20 Three14,16,17 of the four cross-sectional studies were conducted with urban participants. All cross-sectional studies conducted in urban areas found detrimental behavioral outcomes. The remaining cross-sectional study involving a rural population found beneficial behavioral outcomes for African-American children of improved child selfregulation and social competence.15

## DISCUSSION

Based on the results of this review, the impact of nonabusive physical punishment on the behavioral outcomes of African-American children remains inconclusive. However, there are key lessons to be learned for the development of future studies based on the results of this review. Some of these areas are addressed below.

## **Study Design**

The use of cross-sectional studies to address the issue of disciplinary effects is inherently problemat-

ic. There is no way to establish a causal relationship between the studied behavior (in this case, the use of nonabusive physical punishment) and child behavior. While the cross-sectional studies in this review tended to find detrimental outcomes associated with physical discipline, cross-sectional studies are best used to describe the prevalence of attitudes, belief, or practices rather than to determine effects.

Longitudinal studies, which are better for determining causal relationships, have been informative. Results of such studies included in this review suggest that there may be beneficial effects to the use of nonabusive physical punishment in African-American children. However, more work needs to be done to determine the impact of various contextual factors, such as culture (to be discussed below), environment (e.g., community violence), and the use of other disciplinary practices (e.g., rewarding or timeout). The inclusion of baseline child behavior and better understanding of the appropriate interval between assessment of discipline and child behavior would also strengthen conclusions drawn from longitudinal studies. All longitudinal studies included in the review measured disciplinary practices at four years of age or older, when both disciplinary practices and their behavioral consequences may be well-established. It would be beneficial to begin longitudinal studies in the prenatal period to develop a better understanding of how parental disciplinary practices evolve and what factors impact those choices. Such a design would also allow for better longitudinal measurement of child behavior.

## Measurements of Physical Punishment

In this review, a broad definition was used for nonabusive physical punishment, because there is a lack of consistency across instruments. For example, the article by Brody et al. was included as a measure of "nonabusive physical punishment" though it addresses the use of physical restraint rather than the use of spanking specifically.15 The distinction between abusive and nonabusive physical punishment is difficult to determine based on the information obtained by the various instruments; therefore, we cannot conclusively determine that each study was confined to a nonabusive form of punishment. Relevant to creating this distinction would be documenting the inclusion of the intensity of the discipline. Measures of physical punishment would also be strengthened by the inclusion of a component addressing the emotional context in which discipline occurs, as well as the parental threshold for a child's behavior that leads to the use of various disciplinary practices. For example, at what point does the parent choose to "spank" the child, and how consistent is

this threshold? The frequency and consistency of use of any disciplinary practice may impact outcomes; therefore, a lack of this measurement weakens the interpretation of reported results. Most measures only address recent practices, while long-term exposure is a likely better predictor of impact on outcomes. Very few instruments have been validated and even fewer for use with racially, ethnically, and economically diverse groups. Finally, most instruments only address self-reported beliefs in various practices; therefore, more observational measurements may be needed to determine actual practices.

## Measurement of Child Behavior

Measures of child behavior include internalizing and externalizing behaviors. While the use of crosssectional study design hampers the ability to determine causality, failure to control for the confounder of initial child (mis)behavior also limits interpretation of the results of even longitudinal studies. Only the study by Gunnoe et al.19 controlled for child behavior by measuring child aggression at baseline. This study found that spanking deterred subsequent fighting by African-American children and, while not statistically significant, there was also a negative association between spanking and subsequent aggression for African-American children. Of note is that no studies measured baseline internalizing behavior problems, such as depression, which may influence outcomes.

The meaning a child ascribes to the use of physical punishment by a parent may alter the child's behavioral outcomes. Only one study addressed outcomes from a child's perspective. Gunnoe et al.<sup>19</sup> questioned children on the number of school yard fights in the last 12 months. For a better understanding of the impact of this variable as a confounder, there is a need for more attention to the child's perspective on the context in which discipline occurs.

## Race as a Variable

This review was undertaken in response to the suggestion that there may be predictable behavioral outcomes for African-American children exposed to nonabusive physical punishment. All studies included in this review recruited lower SES and/or urban African-American populations. These populations, reasonably expected to be experiencing stressors related to poverty and lack of resources, have an increased prevalence of physical punishment. On the other hand, Straus<sup>22</sup> found an increased use of corporal punishment among African Americans despite controlling for SES. Ogbu's cultural ecological model proposes that different "instrumental competencies" are required in various "effective environments." One purpose of childhood discipli-

nary practices is to convey such competencies. In so far as environments differ for African-American families of different educational attainment or living in more or less disadvantaged neighborhoods, beliefs about childrearing and discipline may also differ. This is supported by research by Kelley<sup>23</sup> and Bluestone,<sup>24</sup> who found maternal education was negatively correlated with physical punishment and more parent-centered parenting styles. This suggests a need for more attention to confounders, such as SES, education, and environment.

There are no studies that differentiate subgroups of African-American families. Therefore, "race" is actually a general term that may be representing cooccurring circumstances, such as socioeconomic status, educational attainment, or family structure. Put another way, we do not know what the racial identifier is measuring. According to McLoyd, poverty and stress have an impact on parenting and use of discipline." This suggestion, in conjunction with the cultural-ecological model may provide an explanation for behavioral outcome differences. Studies that compare disciplinary practices of lower-SES African Americans to middle- and upper-SES whites confound race and SES25 and fail to control for other potential confounders, such as exposure to violence (community and/or domestic) and parent education.

Rivara and Finberg recently reminded the pediatric community that race and ethnicity are "poor proxies for the variables of interest," such as education, income, and poverty.<sup>26</sup> While this review supports the need for better study of variables related to race, it does not negate the use of race as a variable.

# RECOMMENDATIONS FOR FUTURE RESEARCH

Nonabusive physical punishment appears to be associated with positive and negative behavioral outcomes for African-American children. Several important recommendations emerge from the results reviewed here.

- More rigorous research methods are required, including longitudinal studies with more diverse socioeconomic groups of African-American families and better consideration of various confounders, such as exposure to violence.
- 2. Better measures of nonabusive physical punishment are needed, including frequency, consistency of use, the emotional context in which the discipline occurs, parental threshold for discipline, and the intensity of discipline.
- 3. Incorporation of child behavior measures that include baseline assessments of behavior is needed.

4. Studies would be improved by attention to the development of measures to understand cultural, social, and historical factors that impact discipline practices, and the meaning that the parent and child ascribe to them.

In conclusion, research regarding nonabusive physical punishment in African-American children remains an important priority. Future research would be strengthened by attention to the recommendations provided here.

## **FOOTNOTES**

"Effective environment deals only with those aspects of the environment which directly affect subsistence quests and protection from threat to physical survival."

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