

ences, and how to enhance cognitive skills?

- We need to identify the brain processes that influence cognition. Jensen has found correlations between *g* and elementary cognitive tasks (mental processing speed), the brain's electrical response to stimuli, and how quickly an injection of glucose is absorbed by the brain. Hope for further advance in this area lies in new techniques of viewing what brain centers are active when different cognitive tasks are being done.
- We should learn more about social multipliers. Boozer and Cacciola (2001) showed that when reduced class size raises academic performance, peer interaction multiplies that rise and accounts for virtually all of the long-term gains.
- The relative potency of Whites' and Blacks' social multipliers should be compared.
- Although teaching children "how to think" is desirable, we should recognize that this will not necessarily enhance numeracy and literacy. The focus must be on

teaching reading and arithmetic skills. And note that if we really want to enhance those skills, there will have to be an attitude shift, so that Americans welcome core subjects that make greater cognitive demands. If all parents and children were like Chinese Americans, the "nation's report card" would improve dramatically.

- Above all, we must go beyond *g* to develop a theory of intelligence with a sociological dimension. In this theory, *g* will still play an important role. Within every generation, people compete to win, and, therefore, *g* will always help explain why some people excel across so many cognitive skills.

Recommended Reading

- Deary, I.J. (2001). *Intelligence: A very short introduction*. Oxford, England: Oxford University Press.
- Dickens, W.T., & Flynn, J.R. (2001, April 21). Great leap forward. *New Scientist*, 170, 44–47.
- Jensen, A.R. (1998). *The g factor: The science of mental ability*. Westport, CT: Praeger.

Note

1. Address correspondence to J.R. Flynn, POLS, University of Otago, Box 56, Dunedin, New Zealand; e-mail: jim.flynn@stonebow.otago.ac.nz.

References

- Boozer, M., & Cacciola, S.E. (2001). *Inside the black box of Project STAR: Estimation of peer effects using experimental data* (Center Discussion Paper No. 832). New Haven, CT: Yale University Economic Growth Center.
- Greenfield, P. (1998). The cultural evolution of IQ. In U. Neisser (Ed.), *The rising curve: Long-term gains in IQ and related measures* (pp. 81–123). Washington, DC: American Psychological Association.
- Howard, R.W. (1999). Preliminary real-world evidence that average intelligence really is rising. *Intelligence*, 27, 235–250.
- Jensen, A.R. (1973). *Educability and group differences*. New York: Harper and Row.
- Jensen, A.R. (2002). Galton's legacy to research on intelligence. *Journal of Biosocial Science*, 34, 145–172.
- McWorter, J. (2000). *Losing the race: Self-sabotage in Black America*. New York: Free Press.
- Nunn, J. (1999). *John Nunn's chess puzzle book*. London: Gambit Publications.
- Rosenau, J.N., & Fagan, W.M. (1997). A new dynamism in world politics: Increasingly skilled individuals? *International Studies Quarterly*, 41, 655–686.
- Schooler, C. (1998). Environmental complexity and the Flynn effect. In U. Neisser (Ed.), *The rising curve: Long-term gains in IQ and related measures* (pp. 67–79). Washington, DC: American Psychological Association.

Spanking Children: Evidence and Issues

Alan E. Kazdin¹ and Corina Benjet

Child Study Center, Yale University School of Medicine, New Haven, Connecticut (A.E.K.), and National Institute of Psychiatry, Mexico City, Mexico (C.B.)

Abstract

Whether or not to spank children as a discipline practice is controversial among lay and professional audiences alike. This article highlights different views of spanking, key conclusions about its effects, and methodological limitations of the research and the resulting

ambiguities that fuel the current debate and plague interpretation. We propose an expanded research agenda to address questions about the goals of parental discipline; the role, if any, that punishment plays in achieving these goals; the effects and side effects of alternative discipline practices; and the impact of

punishment on underlying developmental processes.

Keywords

spanking children; punishment; parent discipline

Spanking as a way of disciplining children is a topic of broad interest to people involved in the care and education of children (e.g., parents, teachers), as well as to the many professions involved with children, parents, and families (e.g., pediatrics, psychiatry, psychology, and social work). Hitting children is intertwined with religious beliefs, cultural views, government, law, and social policy and

has enormous implications for mental and physical health throughout the world (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). Corporal punishment as a means of child discipline at home and at school has been banned by many countries, including Austria, Croatia, Cyprus, Denmark, Finland, Germany, Israel, Italy, Latvia, Norway, and Sweden (Gershoff, 2002). The United Nations (Article 19 of the UN Convention on the Rights of Children) argues against all forms of physical violence in relation to children.

Within the United States, several organizations (e.g., Project No Spank—<http://www.nospank.net/toc.htm>) lobby for an end to hitting children and for according children the same legal protections accorded adults (i.e., laws against being hit by others). Despite the lobbying, spanking is still a “hit” with parents—it is quite prevalent. For example, in the United States, 74% of parents of children 17 years of age or younger use spanking as a discipline technique (Gallup, 1995); 94% of parents of 3- and 4-year-olds use corporal punishment (Straus & Stewart, 1999).

After decades of research, debate continues. In this article, we review key findings about the effects of spanking, issues that limit progress in understanding the effects of spanking, and avenues to move research forward. By discussing the topic, we are not in any way endorsing or advocating the use of spanking. Indeed, integral to the research agenda we propose are questions regarding why so many parents believe hitting is an appropriate and effective form of parental discipline and whether hitting is actually needed to accomplish the goals underlying its use in child rearing.

SPANKING DEFINED

Perhaps the most critical issue that underlies this debate is the def-

inition of spanking. The definition determines who participates in a research study, what studies are included in literature reviews, and, hence, what conclusions are reached. A commonly adopted definition specifies spanking as hitting a child with an open hand on the buttocks or extremities with the intent to discipline without leaving a bruise or causing physical harm. This definition helps separate occasional spanking from more severe corporal punishment (Baumrind, Larzelere, & Cowan, 2002; Consensus Statements, 1996).

Physical abuse usually is defined to encompass corporal punishment that is harsh and excessive, involves the use of objects (e.g., belts, paddles), is directed to parts of the body other than the extremities, and causes or has the potential to cause physical harm. Because many parents report using objects during punishment, behaviors that many professionals might consider as clearly abusive are fairly common and included in some definitions of spanking (Gershoff, 2002). Research on hitting (spanking, corporal punishment) varies widely on whether the definition includes practices that frankly are or blend into abuse.

THREE VIEWS OF SPANKING

Three positions about spanking as a form of discipline capture public and professional views rather well. The *pro-corporal punishment* view is infrequently advocated in research and academic writings, but is alive and well in everyday life. This view is represented by the familiar, cryptic, incomplete, and probably misconstrued biblical quotation, “spare the rod and spoil the child” (Proverbs 13:24). The view underscores the beliefs that desirable consequences (e.g., respect for authority, good behavior,

socialization) follow from the use of spanking, untoward consequences result from not spanking, and responsible parenting includes such punishment.

The *anti-corporal punishment* view is that corporal punishment is likely to have short- and long-term deleterious consequences. “Violence begets violence” captures much of this view, which focuses on modeling and social learning as the means by which violence is transmitted from one generation to the next (Straus, 1994). The morality of inflicting pain is also key to this view, so the untoward consequences of hitting are not the only basis for the objection to spanking.

The *conditional corporal punishment* view notes that the effects of spanking are not necessarily negative or positive but may be either depending on other conditions. Spanking can vary along multiple dimensions (e.g., frequency and intensity) and be delivered in many different contexts that may moderate its impact. This view does not advocate spanking, but rather notes that a “blanket injunction” against spanking cannot be supported scientifically (Baumrind, 1996).

OVERVIEW OF RESEARCH FINDINGS

The empirical literature on spanking has been reviewed extensively. The most recent and comprehensive review, completed by Gershoff (2002), consists of a meta-analysis² of 88 studies. Gershoff examined the relationship between corporal punishment and compliance of the child, moral internalization, aggression, criminal and anti-social behavior, quality of the parent-child relationship, mental health, and abuse. Spanking tended to be associated with imme-

diate compliance of the child (i.e., desisting the behavior targeted by the punishment), which Gershoff considered to be the only positive outcome evident in her review. On the negative side, spanking was associated with decreased internalization of morals, diminished quality of parent-child relations, poorer child and adult mental health, increased delinquency and antisocial behavior for children, and increased criminal and antisocial behavior for adults; spanking also was associated with an increased risk of being a victim of abuse or of abusing one's own child or spouse.

Reanalyses of studies have underscored the importance of how spanking is defined. Several studies in Gershoff's review included rather harsh punishment that would qualify as physical abuse (e.g., slapping in the face, hitting with an object). Reanalyses indicated the outcomes were more negative in those studies than in studies of less severe punishment (Baumrind et al., 2002). Similarly, other reviews have suggested that very mild spanking used as a backup for mild disciplinary effects may not be detrimental and indeed can reduce noncompliance and fighting (Larzelere, 2000).

It would be difficult to identify a consensus among researchers beyond a few key points. First, the deleterious effects of corporal punishment are likely to be a function of severity and frequency. Harsh punishment is associated with many untoward consequences, including increased morbidity and mortality for major adult forms of illness (e.g., heart disease, cancer, lung disease; Krug et al., 2002). Second, the effects of mild spanking (an oxymoron to some people) that is occasional, is a backup to other disciplinary procedures such as time out from reinforcement or reasoning, is physically noninjurious, involves an open hand to hit the extremities or buttocks, and inflicts temporary pain are not so

clear (Baumrind et al., 2002). Again, there is no advocacy of corporal punishment in this latter view, but merely an acknowledgment that the research does not speak to the consequence of occasional spanking.

KEY ISSUES FOR RESEARCH

Fundamental conceptual and methodological issues plague the literature on spanking. First, the varied definitions of spanking can dictate the conclusions investigators and reviewers reach, as we have noted. Second, assessments of spanking and children's characteristics (e.g., aggression, deviance) often are retrospective and completed by the same rater (the parent). These influences alone can affect the magnitude of correlations of punishment, child characteristics, and outcomes. Third, the time line is rarely established to show that in fact spanking antedated an untoward outcome and that the "outcome" (e.g., child deviance, poor parent-child relations) was not present in advance of or at the same time as spanking. Fourth, spanking could well be a proxy for a host of other variables that in fact relate to untoward child outcomes. For example, compared with parents who spank less, those who spank more read to, play with, and hug their children less; experience higher levels of stress, more major life events, and more difficult, discordant, and abusive marital relations; and have higher rates of mental illness or substance abuse. These other variables, alone or in combination, might explain the effects attributed to spanking. However, redressing these pivotal methodological issues alone would still leave unanswered many critical questions that could inform the use of spanking (see Benjet & Kazdin, 2003).

Goals of Parent Discipline

Presumably, the goals of disciplining children are to decrease some behaviors (e.g., tantrums, talking back), to develop others (e.g., problem solving, playing cooperatively, completing homework), and to promote socialization more generally. It is not at all clear from animal laboratory studies and human applied studies that punishment is among the better strategies for accomplishing these behavior-change goals. For example, decreasing and eliminating inappropriate child behavior in the home can be achieved through positive reinforcement techniques (e.g., from many arrangements that focus on rewarding alternative behaviors) without the use of any punishment (Kazdin, 2001). In addition, noncorporal punishment techniques that are less aversive than spanking (e.g., brief periods of time out from reinforcement, small fines on a point chart) can be effective. The use of spanking raises questions regarding the goals of discipline, whether any punishment is needed to attain them, and, if in fact punishment is needed, whether hitting has any benefit over noncorporal punishment. Comparisons of punishment with nonaversive procedures, even in laboratory analogues, would add pertinent information that could inform debates about spanking. Additionally, the underlying processes motivating parents to spank or to continue to use spanking could be investigated to determine whether they are concordant with the stated goals of spanking.

Concomitant Effects of Punishment

Concomitant effects include any effects outside the direct focus of spanking and encompass the development of prosocial behaviors,

misbehavior other than the one to which spanking was directed, and emotional reactions (e.g., crying, anger). Gershoff (2002) found that children who were spanked were more angry, aggressive, and stressed than children who were not disciplined in this way. This finding is in keeping with other applied as well as animal laboratory research showing that punishment can have untoward side effects, including emotional reactions, aggression, and escape from and avoidance of people, settings, and situations associated with punishment (Hutchinson, 1977; Kazdin, 2001). These effects are particularly likely with corporal punishment, but they can occur with low levels of noncorporal punishment as well. Few studies have examined side effects of spanking and how these compare with the side effects that may result from equally effective (or more effective) strategies that do not rely on punishment.

Impact of Corporal Punishment on Development

Child abuse, a more extreme form of corporal punishment than is the focus of this article, can exert biochemical, functional, and structural changes in the brain (e.g., changes in cerebral volume and increased or decreased reactivity to various neurotransmitters; Glaser, 2000). Some of these changes have psychological concomitants (e.g., changes in reactivity to stress and in working memory). We do not wish to imply that spanking necessarily has any similar consequences or effects, but at the same time, it is not clear whether, how, or at what threshold the brain makes the distinction between child abuse and spanking. As a result, the circumstances under which spanking might also have such deleterious effects is uncertain.

Other psychological areas critical to development (e.g., attachment,

emotional regulation, stress of the child, parent-child relations) reflect critical brain-behavior-environment interactions that warrant attention. Although we do not challenge reviews claiming that very mild corporal punishment has not been shown to have either beneficial or deleterious effects, we argue that there is a need to look at how spanking might influence psychological processes critical to development. Research has already demonstrated that many developmental processes can be adversely influenced by harsh punishment.

Main Effects and Moderators

It is likely that any effects of parenting discipline practice are moderated by scores of variables related to the child, parent, family, and broader context (e.g., culture). The range of candidate variables to investigate is daunting, but there are exciting possibilities. Advances in molecular genetics will no doubt lead to breakthroughs that move researchers closer to understanding mechanisms and to identifying subgroups of youths who might be especially vulnerable to various discipline practices. For example, boys who are maltreated are likely to develop antisocial behavior if they have a particular gene characteristic related to one of the brain's neurotransmitter systems (Caspi et al., 2002). There are not many models that have been proposed and tested to explain influences that moderate the effects of spanking. This is a difficult topic in part because a study might implicitly endorse spanking as a good, or at least neutral, practice for some children and families and as a detrimental practice for others, or even unwittingly "blame" the child for extreme reactions to corporal punishment. The study of moderators of the effects of spanking is a charged topic because it could be

unwittingly construed as advocating hitting some children but not others. We have already raised the question of whether spanking is needed at all in child rearing.

CLOSING COMMENTS

Objections to spanking are made on moral, humane, and legal grounds (e.g., the immorality of inflicting pain, unequal treatment of children and adults under the law). These objections are critical insofar as they apply to all hitting of children and are independent of the evidence on the effects of spanking. The evidence suggests that spanking that is frequent and harsh is often associated with undesirable mental and physical health outcomes.

The effects of very mild, occasional spanking are not well studied or sufficiently clear from available studies. In one sense, it may be correct to say that current evidence does not establish the deleterious or beneficial effects of very mild spanking. Even so, it may be prudent to caution against the use of spanking because there are nonaversive alternatives for accomplishing the same disciplinary goals, and because it has not been empirically established where the demarcation is between mild spanking that may be safe to use and severe corporal punishment that is known to be dangerous. Moreover, mild spanking can escalate and apparently does mix in with more severe hitting (Gershoff, 2002). Thus, the many health, psychological, and neurological consequences of harsh punishment cannot be dismissed as irrelevant to mild spanking. One of the reasons that there is a debate about the effects of spanking is that investigators who study spanking and the parents and teachers who interact with children cannot ad-

here consistently to a delimited and crisp definition of spanking or hitting that is "mild and occasional."

From a parenting and policy perspective, the basic question is, why use corporal punishment at all? Mild noncorporal punishments such as brief time out from reinforcement or short-term loss of privileges in the context of praise and rewards can accomplish the goals for which spanking is usually employed. After years of research, critical questions about mild forms of corporal punishment remain. We have suggested some lines of work to inform discussions about the practice of spanking and its effects. More longitudinal studies are needed to help establish time lines between spanking and desirable and undesirable outcomes, competing constructs that may explain the effects attributed to spanking need to be ruled out more persuasively, and animal laboratory studies could be brought to bear more forcefully on the topic. Human and animal laboratory studies evaluating transient and enduring biological and behavioral reactions to punishment will be critical for illuminating the developmental processes that are influenced by corporal punishment and whether distinctions in the severity and frequency

of punishment are relevant to these processes.

Recommended Reading

- Benjet, C., & Kazdin, A.E. (2003). (See References)
- Gershoff, E.T. (2002). (See References) (Multiple commentaries follow this article)
- Larzelere, R.E. (2000). (See References)
- Straus, M.A., & Stewart, J.H. (1999). (See References)

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Notes

1. Address correspondence to Alan E. Kazdin, Child Study Center, Yale University School of Medicine, 230 S. Frontage Rd., New Haven, CT 06520-7900.

2. Meta-analysis combines the effects of several studies using a common unit of analysis. For each study, groups are compared (e.g., children who have been spanked vs. those who have not), and their difference is placed into a common metric that permits studies to be compared and combined.

References

- Baumrind, D. (1996). A blanket injunction against disciplinary use of spanking is not warranted by the data. *Pediatrics*, *98*, 828-831.
- Baumrind, D., Larzelere, R.E., & Cowan, P.A. (2002). Ordinary physical punishment: Is it harmful? Comment on Gershoff (2002). *Psychological Bulletin*, *128*, 580-589.
- Benjet, C., & Kazdin, A.E. (2003). Spanking children: The controversies, findings, and new directions. *Clinical Psychology Review*, *23*, 197-224.
- Caspi, A., McClay, J., Moffitt, T.E., Mill, J., Martin, J., Craig, I.W., Taylor, A., & Poulton, R. (2002). Role of genotype in the cycle of violence in maltreated children. *Science*, *297*, 851-854.
- Consensus Statements. (1996). *Pediatrics*, *98*, 853.
- Gallup Organization. (1995). *Disciplining children in America: A Gallup poll report*. Princeton, NJ: Author.
- Gershoff, E.T. (2002). Parental corporal punishment and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*, *128*, 539-579.
- Glaser, D. (2000). Child abuse and neglect and the brain: A review. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*, 97-116.
- Hutchinson, R.R. (1977). By-products of aversive control. In W.K. Honig & J.E.R. Staddon (Eds.), *Handbook of operant behavior* (pp. 415-431). Englewood Cliffs, NJ: Prentice-Hall.
- Kazdin, A.E. (2001). *Behavior modification in applied settings* (6th ed.). Belmont, CA: Wadsworth.
- Krug, E.G., Dahlberg, L.L., Mercy, J.A., Zwi, A.B., & Lozano, R. (2002). *World report on violence and health*. Geneva, Switzerland: World Health Organization.
- Larzelere, R.E. (2000). Child outcomes of nonabusive and customary physical punishment by parents: An updated literature review. *Clinical Child and Family Psychology Review*, *3*, 199-221.
- Straus, M.A. (1994). Should the use of corporal punishment by parents be considered child abuse? Yes. In M.A. Mason & E. Gambrill (Eds.), *Debating children's lives* (pp. 195-203, 219-222). Thousand Oaks, CA: Sage.
- Straus, M.A., & Stewart, J.H. (1999). Corporal punishment by American parents: National data on prevalence, chronicity, severity, and duration, in relation to child and family characteristics. *Clinical Child and Family Psychology Review*, *2*, 55-70.