

Early Brain and Child Development: A Brief Intervention Affects Attitudes Towards Physical Punishment

**Satellite Conference and Live Webcast
Thursday, October 11, 2012
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Video Communications and Distance Learning Division

Faculty

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Disclosures and Conflicts of Interest

- The presentation will include a discussion of research on an educational program, Play Nicely
- Play Nicely is owned by Vanderbilt University and Dr. Scholer is one of the authors of the program
- The program can be viewed at no cost at www.playnicely.org

Goals

- Review of toxic stress and health problems
- To review research findings of a brief intervention designed to mitigate toxic stress
 - Teach discipline strategies
 - Change attitudes about physical punishment

Goals

- Focus on research related to changing attitudes about physical punishment

Early Brain and Child Development (EBCD)

- Epigenetics: genes are turned on and off depending upon environmental exposures
- Chronic exposure to toxic stress in the early years can result in permanent changes in brain architecture and functioning
- Toxic stress affects EBCD

Toxic Stress

- **Positive stress response**
 - A normal and essential part of healthy development
- **Example: vaccine in clinic**

Source: Shonkoff JP, Garner AS. AAP Committee on psychological aspects of child and family health. The lifelong effects of early childhood adversity and toxic stress. Pediatrics. 2012.

More Stress

- **Tolerable stress response**
 - Activates body's alert systems to a greater degree as a result of more severe, longer-lasting difficulties
- **Example: loss of a loved one**
- **Protective adult relationship helps return to baseline**

Source: Shonkoff JP, Garner AS. AAP Committee on psychological aspects of child and family health. The lifelong effects of early childhood adversity and toxic stress. Pediatrics. 2012.

Toxic Stress

- **Toxic stress response**
 - Can occur when a child experiences strong, frequent, and / or prolonged adversity
 - Example: physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, exposure to violence
 - Adverse childhood experiences

Source: Shonkoff JP, Garner AS. AAP Committee on psychological aspects of child and family health. The lifelong effects of early childhood adversity and toxic stress. Pediatrics. 2012.

Adverse Childhood Experiences and Health Problems

- **Alcoholism and drug abuse**
- **Smoking**
- **Ischemic heart disease**
- **Liver disease**
- **Intimate partner violence**
- **Depression**

Content source: National Center for Chronic Disease Prevention and Health Promotion. Center for Disease Control and Prevention.

Adverse Childhood Experiences and Health Problems

- **Suicide attempts**
- **Health-related quality of life**

Content source: National Center for Chronic Disease Prevention and Health Promotion. Center for Disease Control and Prevention.

Toxic Stress, Child Abuse, and Physical Punishment

- **Child abuse is a type of toxic stress**
- **Physical punishment can lead to child abuse**

Intervention Opportunity

AMERICAN ACADEMY OF PEDIATRICS

Corporal punishment of limited effectiveness and has potentially deleterious side effects.

The AAP recommends parents be encouraged and assisted in development of methods other than spanking for managing undesired behavior.

approach that includes consistent parent-child relationship, reinforcement of positive behaviors, and consequences for negative behaviors. Corporal punishment is of limited effectiveness and has potentially deleterious side effects. The American Academy of Pediatrics recommends that parents be encouraged and assisted in the development of methods other than spanking for managing undesired behavior.

potential hazards. Such proactive behaviors are central to discipline for toddlers. Communicating verbally (a firm no) helps prepare the infant for later use of reasoning, but parents should not expect reasoning, verbal commands, or reprimands to manage the behavior of infants or toddlers.

As children grow older and interact with wider, more complex physical and social environments, the

Research Question

- Can a brief intervention teach parents about discipline and to not use physical punishment?
- Settings
 - Pediatric primary care
 - Preschool

Intervention

Go to the beginning Recommendation 2

Assume that you see your child hurt another child by hitting. What are some of the best ways for you to respond? After you have chosen an option, it will be highlighted to show if your choice is:

- ☐ A great option.
- ☐ A good option after others have failed, or if
- ☐ There are better options.

Click on all the options that you want to learn more about.

<input checked="" type="checkbox"/> Redirect the behavior	<input checked="" type="checkbox"/> Ask how the other child feels
<input checked="" type="checkbox"/> Later, give praise	<input checked="" type="checkbox"/> Leave the area
<input checked="" type="checkbox"/> Spank your child	<input checked="" type="checkbox"/> Discuss why hitting is wrong
<input checked="" type="checkbox"/> Set the rule	<input checked="" type="checkbox"/> Speak softly
<input checked="" type="checkbox"/> I also deny a privilege	<input checked="" type="checkbox"/> Give a warning
<input checked="" type="checkbox"/> Time out	<input checked="" type="checkbox"/> Hold and give hugs
<input checked="" type="checkbox"/> Ignore the behavior	<input checked="" type="checkbox"/> Talk, encourage play fighting
<input checked="" type="checkbox"/> Ask about your child's feelings	<input checked="" type="checkbox"/> Tell him she is a bad boy
<input checked="" type="checkbox"/> Later, discuss play	<input checked="" type="checkbox"/> Tell future expectations
<input checked="" type="checkbox"/> Only "no"	<input checked="" type="checkbox"/> Continue with a reprimand

Click to go to the next section

Approved by the Morgan Family Foundation www.playnicely.org © 2009 Vanderbilt University

Intervention

Go to the beginning Recomendación 2

Suponga que usted ve a su niño golpear a otro. ¿Qué es lo que debería hacer usted?

Al asignar sus respuestas, se le indicará si la opción es:

- ☐ Muy buena opción
- ☐ Buena opción, si las demás han fallado
- ☐ Existen mejores opciones que ésta

Pulse en cualquiera de las opciones si quiere aprender más acerca de cada tema.

<input checked="" type="checkbox"/> Redirija el comportamiento	<input checked="" type="checkbox"/> Pregúntele cómo se siente el otro niño
<input checked="" type="checkbox"/> Regrese al juego de los dos niños después de todos	<input checked="" type="checkbox"/> Vigíelos del suelo
<input checked="" type="checkbox"/> Dele negativos a su niño	<input checked="" type="checkbox"/> Explíquele por qué golpear es malo
<input checked="" type="checkbox"/> Dígale que "No"	<input checked="" type="checkbox"/> Hábale con calma
<input checked="" type="checkbox"/> Establezca las reglas	<input checked="" type="checkbox"/> Déle una advertencia
<input checked="" type="checkbox"/> Aislamiento, o "tiempo fuera"	<input checked="" type="checkbox"/> Abrríbele
<input checked="" type="checkbox"/> Ignore el comportamiento	<input checked="" type="checkbox"/> Anímelo a jugar tranquilo y activamente
<input checked="" type="checkbox"/> Pregúntele a su niño cómo se siente	<input checked="" type="checkbox"/> Dígale que es un niño malo
<input checked="" type="checkbox"/> Regule un privilegio	<input checked="" type="checkbox"/> Dígale lo que espera de él
<input checked="" type="checkbox"/> Más tarde en el día, discúptele	<input checked="" type="checkbox"/> Pregúntele, con una pregunta

Pasar a la siguiente página

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Study 1, Intervention: At Least 8 Options

Parents View a Brief Violence Prevention Program in Clinic

Seth J. Scholer, MD, MPH,¹ Anamika B. Mukherjee,² Kirsten L. Gibbs,³ Shafia Memon, MBBS,³ and Kathryn L. Jungeward³

Participants were parents of 1- to 7-year-old children presenting to a pediatric clinic. The intervention was Play Nicely, 2nd edition, a multimedia educational program that teaches childhood aggression management skills. On average, parents viewed 10 to 15 min in clinic. The average age of the 89 participants was 30 years; 49% were African American, 29% were married, and 12% had a college education. Preintervention, 90% of parents stated that they felt very comfortable managing aggression. Postintervention, 90% of parents planned to change how they discipline their own child. More than

90% had at least one positive comment about the program; there were no negative comments. A brief intervention that addresses childhood aggression is embraced by a relatively diverse group of parents who viewed it during their children's primary care visit. Parents' prior comfort level with managing aggression should not be used to screen who might benefit. The program has implications for violence prevention.

Keywords: violence prevention; counseling; parenting; childhood aggression; discipline; intervention; education

Study 1

Parents View a Brief Violence Prevention Program in Clinic

30% verbalized they planned to use less spanking

Participants were parents of 1- to 7-year-old children presenting to a pediatric clinic. The intervention was Play Nicely, 2nd edition, a multimedia educational program that teaches childhood aggression management skills. On average, parents viewed 10 to 15 min in clinic. The average age of the 89 participants was 30 years; 49% were African American, 29% were married, and 12% had a college education. Preintervention, 90% of parents stated that they felt very comfortable managing aggression. Postintervention, 90% of parents planned to change how they discipline their own child. More than

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Keywords: violence prevention; counseling; parenting; childhood aggression; discipline; intervention; education

Study 2, Intervention: At Least 8 Options

Voluntary or Required Viewing of a Violence Prevention Program in Pediatric Primary Care

Seith J. Scholer, MD, MPH,¹ Courtney A. Walkowski, BA,²
and Len Bickman, PhD³

Participants were parents of children less than 7 years of age who presented with their child for a well child visit. Viewed in the waiting room, the intervention was *Play Nicely*, which teaches childhood aggression management skills. A total of 138 parents were invited to view the program; 57 (41%) accepted (voluntary group). A second group of 35 parents viewed the program as part of the clinic visit (required group); all 35 (100%) accepted. There were no differences between the groups in the proportion of parents who were pleased that the program was offered by their pediatrician (100%) and the proportion who

felt more comfortable managing aggression after the viewing experience (94%). Approximately 75% of both groups reported an increased willingness to discuss child behavior and discipline strategies with their pediatrician. These findings have implications for how providers can more routinely introduce educational material into the well child visit that relates to childhood aggression, discipline, and violence prevention.

Keywords: childhood aggression; parental discipline; violence prevention

Study 2

Voluntary or Required Viewing of a Violence Prevention Program in Pediatric Primary Care

Participation

1. Invitation to learn about discipline: 57/138 (41%)
2. Next part of the visit: 35/35 (100%)

The proportion of parents who were pleased that the program was offered by their pediatrician: 100%

These findings have implications for how providers can more routinely introduce educational material into the well child visit that relates to childhood aggression, discipline, and violence prevention.

Keywords: childhood aggression; parental discipline; violence prevention

Study 3, Intervention: At Least 4 Options

A Brief Primary Care Intervention Helps Parents Develop Plans to Discipline

WHAT TO KNOW ON THIS SUBJECT: Use of inappropriate discipline and persistent childhood aggression are risk factors for violence. No practical solution has been identified for the problem of low rates of anticipatory guidance being provided to parents regarding childhood behavior and discipline.

WHAT THIS STUDY ADDS: Brief interventions, incorporated into the primary care visit, can markedly increase the proportion of English- and Spanish-speaking parents of young children who are helped with developing plans to discipline their child. The study has implications for violence prevention.

abstract

OBJECTIVE: The objective was to determine if a primary care intervention can help caregivers develop appropriate methods of discipline. **PATIENTS AND METHODS:** A randomized, controlled trial was conducted in a pediatric primary care clinic. (Descriptive English- or

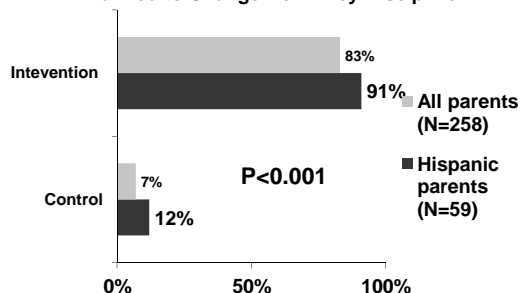
ADDRESS: Seith J. Scholer, MD, MPH,¹ Julia Richard-Bloomer,² and Mary S. O'Brien, PhD,³ Department of Population Science and the Center for Children's Hospital at Vanderbilt University, Nashville, Tennessee and the University of Tennessee, Knoxville, Tennessee. **KEY WORDS:** violence, child abuse, parenting, counseling, aggression, prevention and control, child behavior, primary care. **THIS TRIAL HAS BEEN REGISTERED AT:** www.clinicaltrials.gov (identifier: NCT00707000). **www.pedsiatrics.org** (suppl 16: 1542) (DOI: 10.1542/peds.2009-0914). **DOI:** 10.1542/peds.2009-0914. **Accepted for publication:** Sep 2, 2009. **Address correspondence to:** Seith J. Scholer, MD, MPH, Vanderbilt University, Department of Pediatrics, 1122 Doctor's Office Tower, Nashville, TN 37232. E-mail: seith.scholer@vanderbilt.edu. **PEDIATRICS** (ISSN Numbers: Print, 0031-4005; Online, 1098-4259). Copyright © 2010 by the American Academy of Pediatrics.

Study 3

- All parents were asked, "As a result of your clinic visit today, do you plan to change how you discipline your child or respond to your child's behavior in the future?"
- If "yes," parents were asked what they would do differently

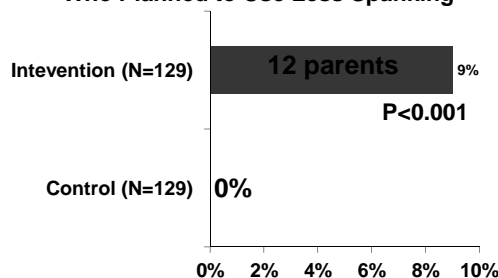
Study 3

Figure 1: Proportion of Parents Who Planned to Change How They Discipline



Study 3

Figure 2: Proportion of Parents Who Planned to Use Less Spanking



Study 3

- If a caregiver stated he or she planned to use less physical punishment, he or she was asked an additional open ended question:
 - “What did you see or hear during your visit today to cause you to consider using less spanking?”

Why Did 12 Parents Plan to Spank Less?

- 7 of 12 mentioned video and / or physician
 - Video made it clear why to spank less
 - Video / physician helped [me] realize spanking not effective
 - Video made it clear if you do not want your kid to hit, then why are you hitting?

Study 4, Intervention: At Least 8 Options

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A Brief Intervention May Affect Parents' Attitudes Toward Using Less Physical Punishment

Seth J. Scholer, MD, MPH; Emma C. Hamilton, BA; Melissa C. Johnson, BA; Theresa A. Scott, MS

Ninety-six parents in a preschool and pediatric clinic participated in a randomized study of a brief parenting intervention. The Attitudes Toward Spanking (ATS) scale was measured at baseline, and, on average, 4 months postintervention. Higher ATS scores are correlated with increased use of physical punishment. In the intervention group, there was a 2.7-point decrease in the ATS score at follow-up compared with baseline ($P = 0.01$). There was no decrease in the ATS in the control group. Brief interventions may shift parental attitudes toward using less physical punishment and have implications for improving anticipatory guidance within primary care and early education. **Key words:** aggression, corporal punishment, mental health, parenting, physical punishment, primary care, preschool, violence prevention

Study 4: Key Measures Attitude Towards Spanking (10 item scale)*

1 2 3 4 5
Strongly Somewhat Neither Somewhat Strongly
..... Disagree Agree

3 of 10 items

- ___ 1. Spanking is a normal part of my parenting.
- ___ 2. Sometimes a spank is the best way to get my child to listen.
- ___ 3. A spank is not an effective method to change my child's behavior for the longterm.

* Vittrup B, Holden GW, Buck J. Attitudes predict the use of physical punishment: a prospective study of the emergence of disciplinary practices. *Pediatrics*. 2006.

Study 4: Key Measures Attitude Towards Spanking (10-item scale)*

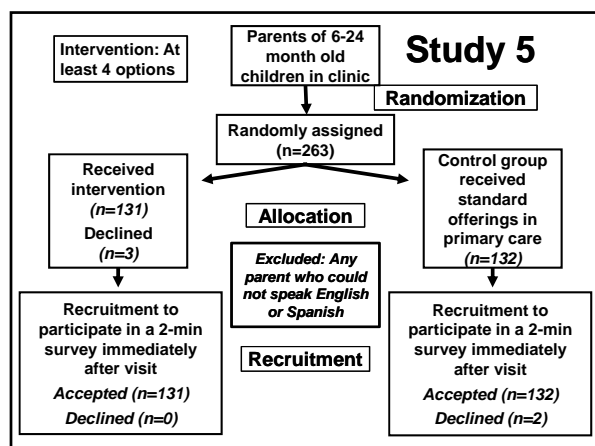
- The ATS scale is scored by reverse scoring 4 questions
- Then, the total score is summed and can range from 10 to 50
 - Higher scores are correlated with a greater likelihood of use of physical punishment*

Study 4

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A Brief Intervention May Affect Parents' Attitudes Toward Using Less Physical Punishment

Table 4. Attitudes toward spanking (ATS)^a at baseline (preintervention) and at follow-up (postintervention)

	Mean ATS (SD)		Change in ATS (post-pre)	P value
	Preintervention	Postintervention		
Control group, n = 32	29.6 (6.7)	28.7 (7.3)	-0.9	0.3
Intervention group, n = 32	30.8 (5.2)	28.1 (7.0)	-2.7	0.01



Study 5: Key Measures Attitude Towards Spanking (10 item scale)*

1 2 3 4 5 6 7
 Strongly Moderately Slightly Neither Slightly Moderately Strongly
 Disagree Agree

3 of 10 items

- ___ 1. Spanking is a normal part of my parenting.
- ___ 2. Sometimes a spank is the best way to get my child to listen.
- ___ 3. A spank is not an effective method to change my child's behavior for the longterm.

* Vittrup B, Holden GW, Buck J. Attitudes predict the use of physical punishment: a prospective study of the emergence of disciplinary practices. Pediatrics. 2006.

Demographics of Parents in Vanderbilt Primary Care Clinic

- Insurance: 80% TennCare
 – i.e. Medicaid in Tennessee
- Gender: 85% female
- Education: 50% high school or less

Demographics of Parents in Vanderbilt Primary Care Clinic

- Race / ethnicity
 - Black: 45%
 - White: 25%
 - Hispanic: 20%
 - Other: 10%

Study 5 – Results

Table 2: ATS score in control and intervention

	Control N=132	Intervention N=131	P- value
ATS Score	30.0	25.9	.043

- Higher scores are associated with actual use of physical punishment

Summary

- A brief education intervention tested mainly with underprivileged and minority caregivers
 - Affects parents' plans to discipline
 - Affects parents' attitudes toward using less physical punishment

Summary

- A portion of parents (9-30%) plan to use less spanking
- Can be integrated into pediatric primary care

Implications

- How to affect parents' attitudes toward using less physical punishment
- Improving primary care and child care offerings related to:
 - Violence prevention
 - Early Brain and Child Development
- Long-term studies are needed

Contact Information

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