




April 16
Public Health Practice
Grand Rounds

Please e-mail questions to
maphtc@jhspk.edu

Thank you!

Promoting Parenting and Early Child Development: Healthy Steps for Young Children

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Developmental, Behavioral and Psychosocial Services

Deficiencies in quality of care (McLearn 1996, Bethell 2001, Halfon 2002, Halfon 2005)

Practice barriers to delivering services (Minkovitz 1998, Horwitz 2007)

Renewed emphasis and collaboration with child health professionals in *The Future of Pediatric Education II* report (2000), *Bright Futures Guidelines for Health Supervision* (2007)

Healthy Steps for Young Children Program

- Enhanced Well Child Care
- Home Visits
- Telephone Line
- Child Development & Family Check-Ups
- Written Materials
- Parent Groups
- Linkages to Resources



2 HS Specialists/site
(1 per 100 families)

An MD/NP-Developmental Specialist Partnership

Program Goals

- Promote the knowledge, skills and confidence of mothers and fathers in their childrearing abilities**
- Promote the healthy development of young children**
- Promote the clinical capacity and effectiveness of pediatric primary care to meet the needs of families with young children**

National Evaluation Design

5565 enrolled at birth

6 randomization and 9 quasi-experimental

Allentown, PA	Boston, MA	Kansas City, KS
Amarillo, TX	Chapel Hill, NC	New York, NY
Florence, SC	Chicago, IL	Richmond, TX
Iowa City, IA	Detroit, MI	
Pittsburgh, PA	Grand Junction, CO	
San Diego, CA	Kansas City, MO	

Sites selected for high quality



Data Sources

Newborn registration forms (5565)

Parent telephone interviews:

2-4 months (4896)

30-33 months (3737)

5-5 ½ years (3165)

Medical record reviews (5351)

Surveys of clinicians and staff

Baseline and 30 months



Analysis

Intention to treat

Logistic regression adjusted for baseline characteristics and sites

Results reported as odds ratios



First 3 Years: Healthy Steps Improved Quality of Care

Effective

- More received Healthy Steps services & home visits

Family-Centered

- Someone in practice went out of their way

Timely

- More age-appropriate well child visits & vaccinations

Efficient

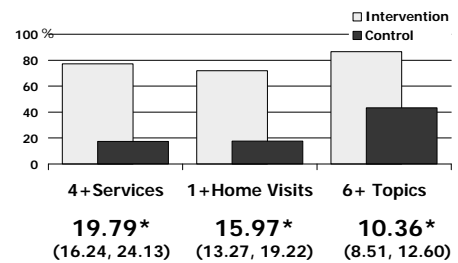
- Greater practice retention & fewer ED visits for injuries

Equitable

- Consistent findings by parity, income, maternal age
- Reduced disparities in receipt of preventive services

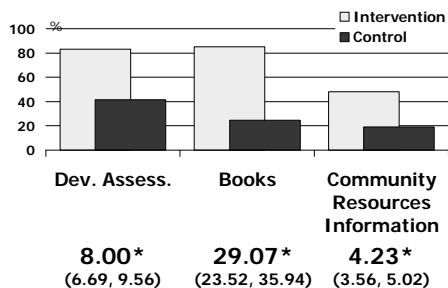
Minkovitz et al. *JAMA*. 2003;290:3081-91. Minkovitz et al. *Arch Pediatr Adolesc Med*. 2001;150:470-479. McLearn et al. *J Urban Health*. 2004;81:556-567.

HS Families Received More Developmental Services



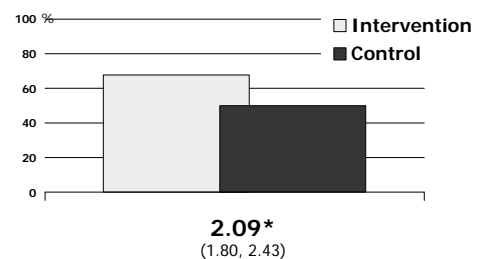
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Developmental Services



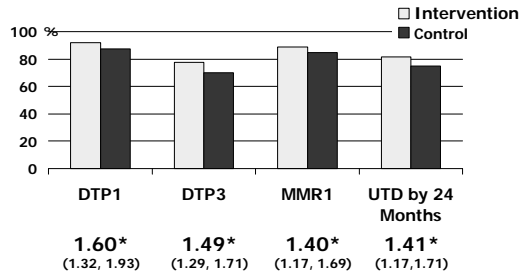
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HS Families were More Satisfied: "Someone Went Out of the Way to Help"



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On-Time Vaccinations



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First 3 Years: Healthy Steps Enhanced Parenting

Infants

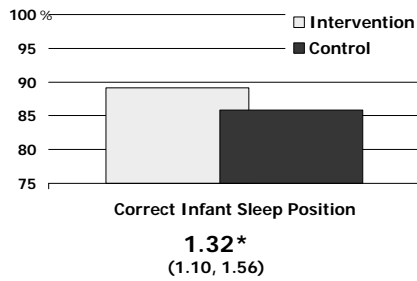
- Used appropriate sleep position
- Shared books each day
- Played each day

Toddlers

- Used less harsh and more cognitive discipline
- Detected aggressive behaviors and sleep problems
- At risk mothers discussed sadness with someone at practice

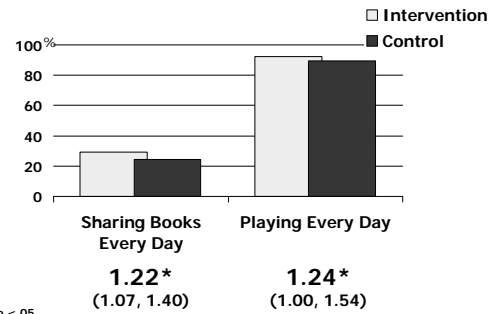
Minkovitz et al. *JAMA*. 2003;290:3081-91. Minkovitz et al. *Arch Pediatr Adolesc Med*. 2001;150:470-479.

Sleep Position



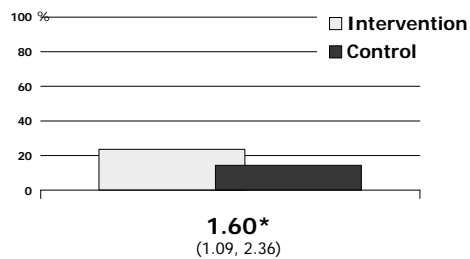
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Book Sharing and Playing



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HS Families Discussed Sadness With Someone at Practice



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Practices Endorse Healthy Steps

Viewed Healthy Steps as effective means to increase attention on behavior and development

Healthy Steps changed how pediatrics was practiced

- Greater understanding of families' needs
- Broadened focus on prevention

Over time, clinicians had over 4 times the odds of reporting being very satisfied with ability of clinical support staff to meet families' needs

Minkovitz et al. *Ambul Pediatr*. 2003;3:295-303.

Healthy Steps at 5 ½ Years: Sustained Treatment Effects

More favorable experiences seeking care

- Received needed anticipatory guidance
- More satisfied with care
- Greater practice retention

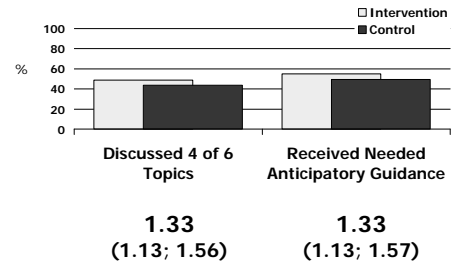
More promotion of child development

- More favorable discipline practices
- More reading to children daily

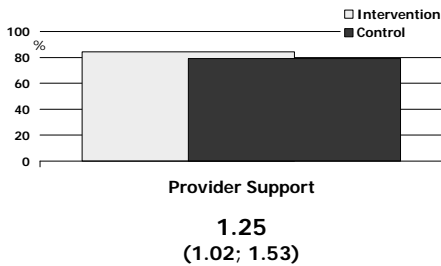
More perceptive regarding child's behavior

Minkovitz et al. *Pediatrics* 2007;120:e658-668

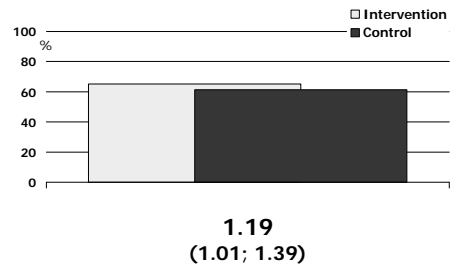
Anticipatory Guidance



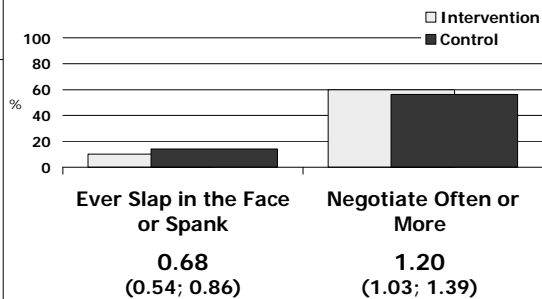
Satisfaction with Care



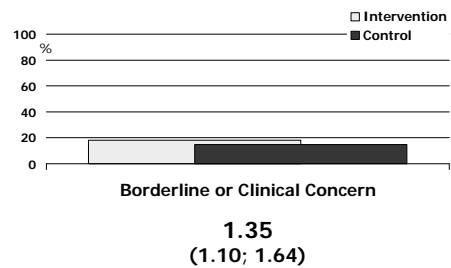
Retention in Practice



Discipline



Perception of Child's Behavior (CBCL)



Limitations

Parent report for behavior and social skills

Select pediatric practices

High quality of care at baseline

Favorable parenting practices (e.g., safety) and perceptions of children (e.g., developmental milestones)

Attrition, not selective



Conclusions

Healthy Steps intervention families seek and receive higher quality of care.

Healthy Steps led to improvements in parenting outcomes related to discipline, encouraging reading, and perceptions of child behavior.



A Model for Promoting Parenting and Early Child Development ?

Universal approach

- Reaches families at place of frequent contact
- Reduces disparities in receipt of preventive services

Practice barriers are surmountable but reimbursement challenges remain

- 50 Healthy Steps practices in operation today
- Institutional, community foundation, public-private support

Implications

Universal practice-based intervention can have sustained effects on experiences seeking care and other parenting practices.

New strategies to meet families' needs can benefit all families, not only those at highest risk for poor health outcomes.

Pediatric practices are viable locations for providing early intervention services as part of an integrated service delivery system.



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