



In the Literature

HEALTHY STEPS FOR YOUNG CHILDREN: SUSTAINED RESULTS AT 5.5 YEARS

Cynthia S. Minkovitz, M.D., M.P.P.
Donna Strobino, Ph.D.
Kamila B. Mistry, M.P.H.
Daniel O. Scharfstein, Sc.D.
Holly Grason, M.A.
William Hou, M.S.
Nicholas Lalongo, Ph.D.
Bernard Guyer, M.D., M.P.H.

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For more information about this study, contact:

Cynthia S. Minkovitz, M.D., M.P.P.
Johns Hopkins Bloomberg
School of Public Health
cminkovi@jhsph.edu

or

Mary Mahon
Senior Public Information Officer
The Commonwealth Fund
212-606-3853
mm@cmwf.org

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THE COMMONWEALTH FUND
ONE EAST 75TH STREET
NEW YORK, NY 10021-2692
TEL 212.606.3800
FAX 212.606.3500
E-MAIL cmwf@cmwf.org
www.commonwealthfund.org

A low-cost program designed to enhance the delivery of childhood behavioral and developmental services was found to have lasting benefits on quality of care for young families and other positive parenting behaviors more than two years post intervention, according to a Commonwealth Fund-supported study published in the September issue of *Pediatrics*.

Healthy Steps for Young Children is a universal, practice-based intervention that incorporates developmental specialists and enhanced developmental services into pediatric care in the first three years of life. A team of Johns Hopkins University researchers found multiple sustained treatment effects at age 5½. “Pediatric practices are viable settings for providing enhanced behavioral and developmental services as part of an integrated service delivery system,” the authors said in their article, “[Healthy Steps for Young Children: Sustained Results at 5.5 Years.](#)”

Positive Parenting Results More Than Two Years Later

The last few decades have seen a rise in interest of early intervention programs aimed at boosting the odds of favorable developmental outcomes in infants and toddlers. Most have been center- or home-based programs, rather than interventions in pediatric health care settings. The objective of this study, led by Cynthia S. Minkovitz, M.D., M.P.P., of the Johns Hopkins Bloomberg School of Public Health, was to assess whether Healthy Steps has sustained effects well after services are provided.

The researchers conducted computer-assisted telephone interviews with mothers when participating children turned age 5½.

The responses indicated that the effects of Healthy Steps were sustained in the following areas: parents’ experiences seeking health care for their child, parents’ responses to their child’s misbehavior, encouragement of daily reading, and perceptions of behavior. Parental discipline practices, overall, were more favorable among the families participating in Healthy Steps. For example, a smaller percentage (10.1%) of intervention families ever slapped their child in the face or spanked him or her with an object, as compared with families in the control group (14.1%). Greater proportions of intervention families often or almost always negotiated with the child (59.8% vs. 56.3%) and tended to often or almost always ignore misbehaviors (10.3% vs. 8.5%).

Meanwhile, intervention families had more favorable practices with respect to encouraging their child to read. More than 59 percent reported that their child looked at or read books in the past week, versus less than 54 percent of control families. Intervention families also reported more favorable experiences seeking health care for their children; for example, Healthy Steps families were more likely to receive anticipatory guidance that matched their preferences than did control families (54.9% vs. 49.2%). Intervention families were also more likely than control families to agree that the pediatrician or nurse practitioner

provided support, and ultimately remained at the Healthy Steps practice. “Each of these effects may contribute to children’s optimal development and well-being, as well as more effective parenting,” the researchers say, adding that while the effects were small in magnitude they persisted well beyond the duration of the intervention.

Conclusions

Long-term evaluations of selected early childhood interventions have shown greater educational achievement, fewer arrests, and higher incomes into adulthood. So-called “sleeper effects” support the notion that early-life experiences may affect behavior and functioning later in life. In this study of Healthy Steps, the researchers conclude that the “incorporation of new health professionals into pediatric care facilitates the expansion of services and strengthens ties between families and practices.”

“Incorporating developmental specialists into pediatric practices seems to be an effective strategy to

meet families’ needs regarding their children’s behavior and development,” the authors say. “Ongoing efforts are needed to determine whether these treatment effects are sustained and whether sleeper effects emerge.”

Facts and Figures

- Healthy Steps is a low-cost program, running between \$402 to \$933 annually, compared with Head Start (\$4,500/year) or the Infant Health and Development Program (\$10,000/year).
- Healthy Steps families made 11 well-child visits and received two home visits within their child’s first 2.5 years.
- The Healthy Steps model has been adapted and now operates in 52 practices in 18 states.

Parenting Outcomes at 5.5 Years

Outcome	All (N=3165)	Intervention (N=1724)	Control (N=1441)
Promotion of child development and safety			
Routine/regular bedtime	86.9%	87.7%	86.0%
Looked at/read books in past week	56.8	59.4	53.6
Seat belt without booster most of time	45.0	43.0	47.4
Always wears bike helmet	56.6	57.1	55.9
Experiences seeking care			
Discussed 4 of 6 topics	46.4	48.7	43.8
Received anticipatory guidance and parenting education accounting for preferences	52.3	54.9	49.2
Agreed that pediatrician/nurse practitioner provided support	80.6	82.0	79.0
Remained at practice	63.4	65.1	61.4
Used emergency department in past year for injury	9.7	9.6	9.8
Hospitalized in past year	3.0	3.2	2.8

Adapted from C. S. Minkovitz, D. Strobino, K. B. Mistry et al., “Healthy Steps for Young Children: Sustained Results at 5.5 Years,” *Pediatrics*, 120(3):e658–e668.