

The Abecedarian Project: High-Quality Early Child Care Has Long-Lasting Effects

New findings from
FPG's landmark
study on benefits
of high-quality
early child care

Do the positive effects of an intensive early childhood educational program extend into adulthood? FPG researchers used comprehensive longitudinal data from the Abecedarian Project to try to answer that important question. The Abecedarian Project was a prospective randomized trial involving primarily African-American families (98%) that began in 1972. The first phase of the intervention provided early childhood education within a high-quality child care setting from early infancy to kindergarten entry at age 5 for half the children while the others served as controls. A second phase of treatment randomly assigned half the children who had child care treatment and half those in the control group to receive the services of a special teacher for the first three years in public school. This teacher alternated bi-weekly visits between classroom and home and designed customized learning activities to reinforce at home skills being taught at school. Thus, the timing and duration of intervention varied from age 0–8 years, or from age 0–5 years, or from age 5–8 years, to no intervention at all, depending on the subgroup to which participants belonged. Because assignment to treatment groups was random, children's developmental outcomes can more fairly be attributed to treatment itself rather than to initial differences in family circumstances.

Evidence from other programs that provided poor children with early childhood educational experiences and then followed them up past the college years suggests that early childhood interventions can confer significant educational, economic, and social-emotional benefits that continue into adulthood. Prior Abecedarian Project reports, too, describe benefits persisting up to early adulthood. Because evaluations at age 8, 12, and 15 years suggested that the infancy-age 5 phase of treatment, whether or not it was combined with the additional 3 years in the primary grades, exerted a more powerful effect on subsequent cognitive and academic achievement, the last two follow-up studies reverted to a 2-group model that compared all those treated from infancy to age 5 with all those in the early childhood control group. Specifically, at age 21, significant effects for the Abecedarian treatment group included the following:

- Better intellectual test performance and reading and mathematics test scores
- More years of education
- A greater likelihood of being enrolled in college



- A greater likelihood of being in school or having a skilled job or both
- Less likelihood of being a teen parent, smoking marijuana, or reporting depressive symptoms

Age 30 Follow-up

The most recent Abecedarian Project follow-up sought to assess whether the encouraging effects detected at age 21 represented enduring life-enhancing benefits at age 30.

The assessments took place from 2003–2009 and involved 101 of the original 111 participants, representing 98% of those living and eligible (52 of 57 individuals randomized into the treatment group as infants and 49 of 54 assigned to the control group). Data collection consisted of semi-structured interviews (face-to-face, when possible) and questionnaires that focused on the primary and secondary outcomes shown in the Outcomes of Interest of Age 30 Table.

Outcomes

Educational: Abecedarian Project early childhood participants had significantly more years of education by age 30 than individuals in the control group (13.46 versus 12.31 years, $p < .01$). Whereas rates of high school completion were similar in both groups, early childhood participants were more than four times more likely to have completed a bachelor's degree or higher by age 30 (23% versus 6%, $p < .05$).

Economic: Although the income-to-needs ratio was more favorable for those with early childhood treatment, the difference was not statistically significant. However, Abecedarian participants were more likely to have been consistently employed full-time during the preceding 24 months (75% versus 53%, $p < .05$) and were six times less likely to have received public assistance for at least 10% of the reference period (4% versus 20%, $p < .05$).

Social-emotional adjustment: There were no treatment group differences in criminal activity, the primary outcome of interest. Similar proportions of 30-year-olds in the early childhood treatment and control groups reported being convicted of misdemeanors or felonies (just over 25%). Participants in the early childhood treatment group showed a significant tendency

Outcomes of Interest at Age 30

Domain	Primary Outcome	Secondary Outcomes
Educational	Years of education completed	High school/GED graduation rate College graduation rate
Economic	Income-to-needs ratio (INR)	Full-time employment (previous 2 years) Job prestige Earned income Use of public assistance Head of household
Social-emotional	Rate of involvement in crime	Marriage Children Mental health/social adjustment Substance use Health status

to delay parenthood, waiting almost two years longer than control individuals to have their first child ($p < .05$).

Implications

Thirty years after participating in the Abecedarian Project, adults appear to be continuing to benefit from their early experiences in a variety of ways, particularly with regard to educational attainment and some economic indicators. Given that early childhood programs seek to promote school success—often operationalized as completion of high school—the fact that intervention participants were far more likely than control participants to have earned a college degree deserves attention. The Abecedarian college graduation rate compares favorably to the rate in the United States as a whole (23.5% versus 24%) and is much higher than the rate for African Americans nationally (14%). This is noteworthy in light of the lifelong implications of college graduation for future accomplishments and community status. The study's results suggest that the developmental trajectory of at-risk children can indeed be changed in a way that positively influences their adult lives. For poor families who need out-of-home care for their infants, high-quality early child care may provide a vital opportunity to enhance development. ■

To Learn More

Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B. H., . . . Ramey, C. T. (2012, January 16). Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up. *Developmental Psychology*. Advance online publication. doi: 10.1037/a0026644



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