

Early Childhood Programs

Review 2

D'Onise, K., McDermott, R. A., & Lynch, J. W. (2010). Does attendance at preschool affect adult health? A systematic review. *Public Health*, 124, 500–511. PubMed abstract available at <http://www.ncbi.nlm.nih.gov/pubmed/20716457>.

Objectives	Assess how participation in programs with a center-based preschool component may improve health and mental health outcomes in adulthood.
Studies Included	Twelve U.S. and international studies from 1993 to 2008
Participants in the Studies	Children ranging from 0 to 9 years and their parents/guardians; most participants were disadvantaged preschool children; follow-up was conducted when the participants were adults
Settings	Some of the reported settings were preschool and home visits.
Outcomes	Health outcomes, including the presence or absence of disease, disease risk factors, health behaviors (such as smoking, drug and alcohol use, exercise); safety behaviors (such as seatbelt or condom use); mental health and well-being indicators (such as depression, self-esteem, schizotypal personality disorder)
Limitations of the Studies	There were several methodological limitations in the small number of eligible studies; studies looked at different health outcomes and had different study designs and interventions, making synthesis of the evidence difficult; studies had small sample sizes with relatively young adult follow-up ages (up to 40 years), so it was difficult to evaluate the impacts of the interventions on outcomes such as diabetes mellitus; results could include effects of residual confounding, especially in nonrandomized cohort and quasi-experimental studies; the majority of studies used self-reported outcomes, and these outcomes may reflect other factors, such as health literacy and access to health services, which are often compromised in disadvantaged populations in the United States; because the studies were homogenous and all but one took place in the United States, it is unclear whether they are generalizable to other populations or cultures; the interventions were implemented in the 1960s to 1980s and may not be as relevant in today's different social context.

Results

The current study examined the effects of multifaceted interventions for children on the participants' mental health and health outcomes in adulthood. Five of the studies examined the effects of two large government

programs (Head Start and Chicago Child Parent Center). The other seven studies examined smaller-scale university-based interventions, such as Project CARE and the Perry Preschool Program. Some of the interventions included a wider age range (0–9) because of the extended intervention components offered, such as home visits, nutrition services, and social services.

Overall, the review provides some support for the role of early childhood interventions to improve health behavior, but not chronic disease outcomes years later. Specifically, there was evidence of beneficial effects on health behaviors such as tobacco and marijuana smoking, exercise and safety behaviors, and some evidence for improved symptoms of depression. The evidence for preventive health service use (e.g., routine dental, physical, ophthalmological exams) was inconsistent, and there was some evidence for increased risk of hypertension. Chronic disease outcomes, such as diabetes, were difficult to assess owing to a lack of assessment and follow-up data provided.