

Getting a “Head Start”: The Health Impacts of Preschool Education

I. Introduction

The effectiveness of early education programs such as [Head Start](#) is typically centered on cognitive and social-emotional development measures (5). However, the comprehensive services Head Start offers, including nutritional education, suggest an impact on children’s health status and receipt of health care services. The effects on health have not been as extensively investigated but implications could support the overall effectiveness of the program from a more holistic perspective. Moreover, findings demonstrating the health benefits of Head Start could increase support for the program, as well as encourage the implementation of more Head Start programs in areas that are particularly disadvantaged. Such findings require research that illustrates which aspects of the nutrition component of Head Start are most effective. The goal of this paper is to review the available literature and provide more insight on the impact that Head Start has on health.

II. Background on Head Start

Initiated in the summer of 1965, Head Start was created as part of the War on Poverty with the goal of boosting the school readiness of low-income children. Based on a “whole child” model, the program provides comprehensive services that include preschool education, medical, dental and mental health care, nutrition services and programs to help parents foster their child’s development (9). The services are designed to be responsive to each child’s and family’s ethnic, cultural, and linguistic

heritage. Although many other programs developed during the War on Poverty did not survive, Head Start did. It represents one of the major social experiments in the second half of the twentieth century in the United States (11).

The ill effects of low SES on children’s health are well recognized (2). The low-income population group that Head Start targets has higher vulnerability to conditions such as infant mortality, low birth weight, poor nutrition, inadequate immunizations, and lack of access to adequate health care (11). A growing body of research suggests that the first few years of life are a particularly promising time to intervene in the lives of low-income children; however, the long-term effects on children of the U.S. government’s primary early childhood program, Head Start, remains a topic of debate (8).

III. Research Findings

Head Start Educational Benefits and Possible Relation to Health Outcomes

There is substantial literature suggesting that participation in early education programs such as Head Start is beneficial in preparing children for school (10). The Impact Study Report published in 2010 confirmed that providing access to Head Start has a positive impact on children’s preschool experiences (10). Two groups were analyzed, a 3-year-old group of 1,530 children, and a 4-year-old group of 1,253 children. The former participated in Head Start for two years and the latter participated for one year. Access to Head Start had positive impacts on several aspects of children’s school readiness during their time in the program. For the 3-year-old group, benefits were found at the end of the first and second year of participation, including impacts on vocabulary, letter-word identification, pre-academic skills,

letter naming, applied problems (math), phonological processing, hyperactive behavior, parent reading to child, and family cultural enrichment activities. For the 4-year-old group, benefits at the end of the Head Start year were concentrated in language and literacy elements of the cognitive domain, including impacts on vocabulary, letter-word identification, spelling, pre-academic skills, color identification, letter naming, and parent-reported emergent literacy.

Other research has shown that children who attended Head Start maintained educationally substantive gains in general cognitive/analytic ability, especially when compared to children without preschool experience (6). Similarly, children who participated in a 1-year enriched intervention (Head Start REDI) showed more advanced results in measures of vocabulary, emergent literacy, emotional understanding, social problem solving, social behavior, and learning engagement (1). Because health is affected by factors such as social-emotional development, positive impacts in such areas may indirectly be improving health.

Positive Effects of Head Start on Health

Head Start is estimated to reduce the likelihood of obesity in later childhood for black participants (4). The reduction in the rate of children that are overweight and obese is likely from the provision of nutritious foods, along with the parent and child nutritional education. A limitation of this finding is that although it demonstrates an impact of the program, it does not show the pathway through which Head Start participation reduces childhood obesity.

An increase in Head Start funding was found to be associated with a decline in

mortality rates (7). For children ages 5 to 9, increasing Head Start funding by 50 to 100 percent was associated with a 33 to 75 percent decline in mortality rates. These findings were the result of a regression discontinuity design that analyzed the differences in mortality rates when the 300 poorest counties in the US were receiving funding for Head Start programs (1965-1979) compared to the cutoff period. The study found evidence of a large negative discontinuity at the cutoff from causes that could be affected by Head Start, but not for other mortality causes or birth cohorts that should not be affected by the program (7).

Both whites and African-Americans who participate in Head Start gain greater access to preventative health services (3). Research illustrated that Head Start increased the receipt of immunizations and height-for-age compared to children that were not participating in Head Start.

The Impact Study Report of 2010 found that Head Start had a relatively large impact on children's receipt of dental care for both children who had participated for one year and two years (10). Additionally, the report found that Head Start increases children's health insurance coverage during the early school years. During the kindergarten year, 90 percent of the Head Start group children in the 4-year-old cohort and 93 percent of Head Start group children in the 3-year-old cohort were covered by health insurance. However, a possible limitation in the methodology of this study is due to parents reporting on their child's health care services and aspects of their child's health. Studies that directly measure the child's health would have been more conclusive.

Although Head Start has grown over time, and currently serves nearly 1 million low-income children each year at a cost of about

\$7 billion, skepticism about the cost-effectiveness of the program persists (8). The controversy surrounding the effectiveness of Head Start has led to a rise in research investigating the lasting effects of the program. The Impact Study Report in 2010 found that the benefits of access to Head Start at age 4 are largely absent by first grade for the program population as a whole. This led to further research on the long-term benefits of Head Start, which were published in a follow-up study in 2012 that tracked the progress of the same children through third grade.

Limitations of Head Start on Health

The Health Impact Study of 2012 found limitations in the beneficial duration of the health effects of Head Start (9). For the 4-year-old cohort, in kindergarten, there was suggestive evidence of an improvement in children's health status and an increase in health insurance coverage. Although this evidence of increased health coverage was still moderate by the end of 1st grade, there were no significant impacts at the end of 3rd grade. Further research investigating why health benefits are not extending into later childhood is necessary to improve the Head Start program.

IV. Policy Implications and Recommendations

Review of the literature demonstrates that Head Start provides benefits to the disadvantaged population group it targets. The fact that these benefits are short-term emphasizes the need for further investigation into the methods through which Head Start is working to improve health (9). One possible reason why the nutritional benefits do not extend into later childhood is that the food policies of the subsequent schools attended by Head Start

participants may counteract the benefits of the Head Start program (4). An additional explanation for why the benefits do not persist is that Head Start provides nutritious foods, which may compensate for the lack of access to healthy foods in poor neighborhoods (4). In other words, although healthy meals are provided during the duration of the program, review of the literature suggests that this method lacks sustainability.

The lack of lasting health effects from Head Start suggests the necessity of close analysis of the current nutrition program. Although the exact methods through which Head Start benefits health remain unknown, increasing the health education component for both children and parents may result in longer lasting effects. It is essential to create an engaging program that effectively communicates the importance of nutrition. While providing healthy meals is beneficial in the short-term, a combination of meals and health education may show more promising long-term effects.

In addition to making changes to the Head Start program, changes could be made at the local level to create environments that offer healthy options. Policies that implement stricter regulations on the availability of high fat foods and sugary drinks in schools are recommended. These findings also suggest the necessity of a health and nutrition component in school curriculums. Moreover, there is a higher concentration of fast food chains in disadvantaged areas, which limits the long-term effects of early education programs such as Head Start. In addition to creating healthier school environments, policies should be implemented to decrease fast food outlets and increase fresh produce availability and affordability in low-income areas.

V. Related Sources of Interest

1. National Head Start Association
<http://www.nhsa.org/>
2. Office of Head Start: An Office of the Administration for Children and Families
<http://www.acf.hhs.gov/programs/ohs/>
3. Head Start of Santa Clara and San Benito Counties
<http://www.sccoe.k12.ca.us/depts/headstart/>

VI. References

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