

INTRODUCTION

Preschool-based interventions offer promise to instill healthy behaviors in children. However, their efficacy in underserved communities is not well established.

OBJECTIVES

To assess the impact of a preschool-based health promotion educational intervention in an underserved community.

METHODS

The “Family-Based Approach in a Minority Community Integrating Systems-Biology for Promotion of Health” (FAMILIA) trial is a cluster-randomized controlled study involving 15 Head Start preschools in Harlem, NYC.

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- Schools and their children were randomized 3:2 to receive either 4-month (50 hours) educational intervention; or their standard curriculum (control).
- Primary outcome: change from baseline in the overall knowledge, attitudes, and habits (KAH) score of the children.
- Secondary outcomes: changes in KAH subcomponents and the test of emotion comprehension.
- Linear mixed-effects models were used to test for intervention effects.

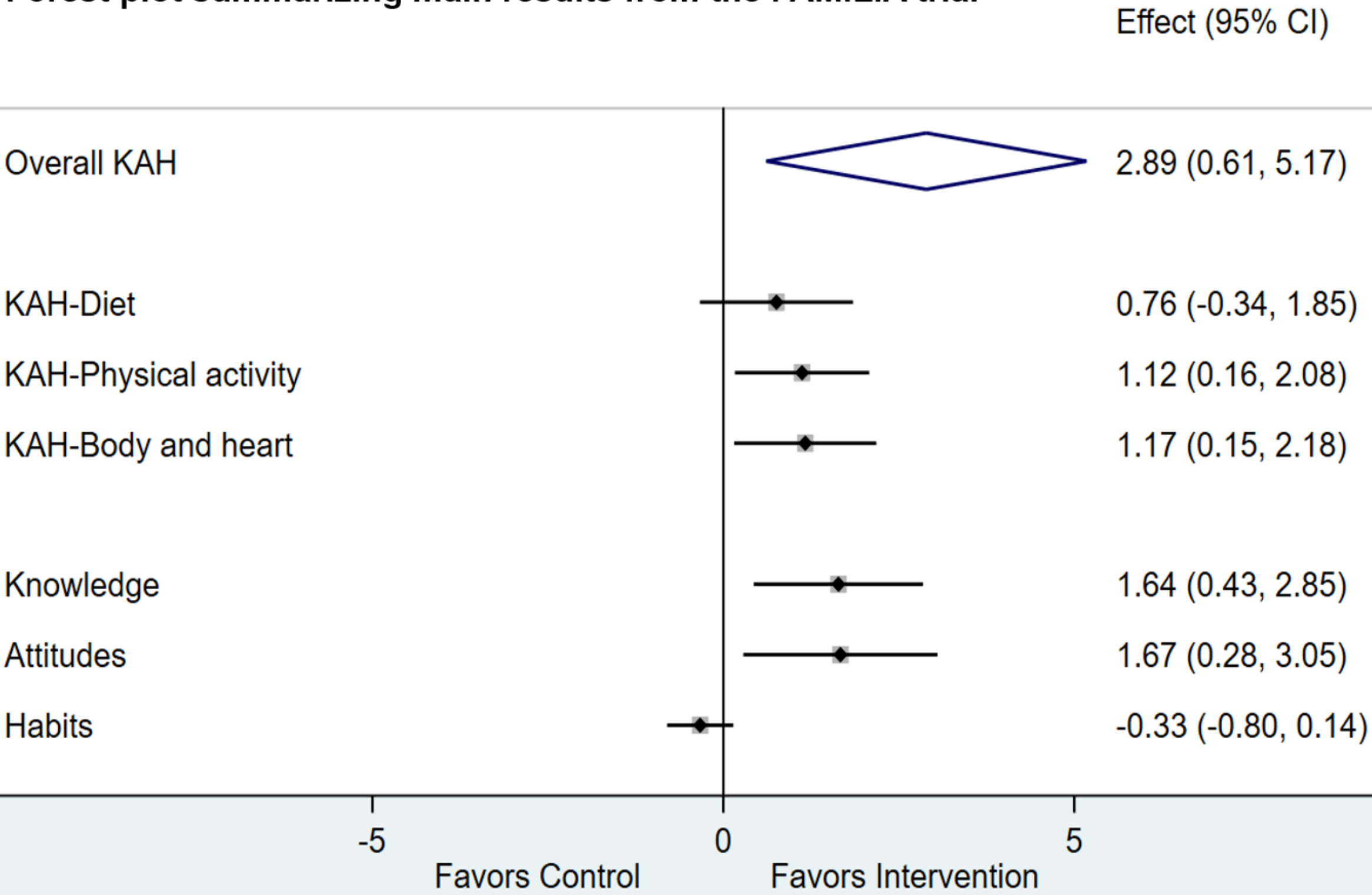
RESULTS

We enrolled 562 preschool children 3 to 5 years old, 51% female, 54% Hispanic/Latino and 37% African-American:

- Compared to the control group, the mean relative change from baseline in the overall KAH score was ~2.2 fold higher in the intervention group (average absolute difference of 2.89 points; 95% CI: 0.61 to 5.17).
- Physical activity and understanding of the human body and heart components, and knowledge and attitudes domains, were the main drivers of the effect (p-value <0.05).
- Changes in emotion comprehension trended to favor intervened children as compared to controls.



Forest plot summarizing main results from the FAMILIA trial



CONCLUSIONS

- The FAMILIA trial demonstrates that a multidimensional school-based educational intervention may be an effective strategy for establishing healthy behaviors among preschoolers from a diverse and socioeconomically disadvantaged community.
- As part of a long-term vision, we are conducting a long-term follow-up of the children to assess the sustainability of the intervention effects.