Household food insecurity does not predict weight-related outcomes in a low-intensity childhood obesity treatment program

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BACKGROUND

In 2018, approximately 14% of households with children under 18 years experienced food insecurity (FI).1 Though research on the association between FI and obesity in childhood is mixed, some studies indicate that FI is paradoxically associated with childhood obesity.2 Reduced access to healthy foods due to economic and environmental constraints may be drivers of this phenomenon.3,4 However, little research has examined whether FI status affects child weight outcomes.5

OBJECTIVE

Conduct a secondary analysis examining the effects of household FI status on weight-related outcomes among children participating in a low-intensity obesity treatment program delivered at Cherokee Health Systems, a federally qualified health center, in Knoxville, TN.

STUDY DESIGN & SETTING

“Prevention Plus” is an evidence-based childhood obesity intervention for primary care settings.6 In this trial, two 6-month family-based programs targeting Prevention Plus energy-balance behaviors (fruit, vegetable, and sugar-sweetened beverage intake; physical activity; and screen time) were implemented. One program targeted both caregiver and child behaviors, while the other targeted child behaviors only. The program consisted of alternating monthly in-person meetings and phone calls delivered by a Behavioral Health Consultant from Cherokee Health Systems.

RESULTS

FI status was not related to zBMI, t(62)=1.01, p=0.32, or child energy intake, t(48)=0.44, p=0.66, at post-intervention. A main effect of time was observed for zBMI, F(1,64)=5.97, p=0.017, and energy intake, F(1,50)=6.86, p=0.012.

CONCLUSIONS

While child zBMI and energy intake were successfully reduced post-intervention, household FI status did not affect weight-related outcomes in this low-intensity obesity treatment program implemented in a primary care setting. However, sample size was small, and power to detect an effect may be limited. Future research should examine whether FI status affects child weight outcomes in larger samples, as well as in more intensive interventions for which adherence may be challenging for families with unstable food access. Such research has important implications for the development of childhood obesity interventions that decrease, rather than widen, existing health disparities.

REFERENCES


ACKNOWLEDGEMENTS

Funding: R34DK109504