Happy Family, Healthy Kids: An Intergenerational Program to Promote Healthy Eating Habits

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Data Analysis

The IBM SPSS Statistics 27 was used to perform all data analyses. Descriptive statistics were applied to describe variables' means, standard deviations, ranges, frequencies, and percentages. To compare differences by study year or setting, independent-samples t-test was used when the variable was continuous, and Chi-square test or Fisher's exact test was utilized when the variable was categorical. The Little's Test was used to examine whether the data were missing completely at random. The missing data rates ranged from 0% to 27.1%. The Little's test result was not significant (χ^2=2939.24, p=1.00), indicating the data were missed completely at random. Multiple imputation (m=20) was performed on all demographic and outcome variables. Analyses were performed on each imputed dataset and the results were pooled using Rubin's rule. Robustness of the results was examined by comparing results before and after imputation.

Paired-samples t-tests were performed to examine the outcome changes from baseline to post-program in each study year across urban and rural settings. To estimate effect size, Cohen's d was calculated to describe program effects as small=0.20, medium=0.50, and large=0.80. To explore the program effects by year and setting, general linear model was employed by treating post-program outcome as the dependent variable, baseline outcome as the covariate, and study year and setting as the fixed factors. As this study was an exploratory pilot non-randomized trial aiming to generate the effect sizes for future confirmatory studies, multiple testing adjustments were not used.